Galaxy
SCIENCE FICTION

JUNE 1958

35¢

MARS BY MOONLIGHT
By
PAUL FLEHR

•

NEWS OF ATLANTIS
By
WILLY LEY

•

THE MINIMUM MAN
By
ROBERT SHECKLEY

•

THE GENTLEST UNPEOPLE
By
FREDERIK POHL



Looking For Us, Professor?

"Hmm, yes. I was just cagitating upon the causes af GALAXY Science Fiction's phenamenal grawth in papularity."

"And that needs an explanatian, Prafessar?"

"Fram a sacia-psychalogical viewpaint, mast definitely. To what do you attribute the constant increase of interest?"

"Well . . . let's try it this way, Professor. Suppose we ask the questians and you answer them."

"Sa? A bit unusual, but go right ahead."

"Da yau think atamic daam is the anly future for mankind?"

"Nat exactly, but the newspapers and the cammentatars—"

"Of course. Well, we SHOW ather passible futures. Da yau believe we will be able ta leave the Earth?"

"Eventually, perhaps. But nat in aur lifetime."

"We don't agree. Assuming yau're right, thaugh, isn't that all the mare reasan to want ta know what we'll find an ather planets, Prafessar?"

"I think I see what yau mean."

"Can we achieve immartality?"

"Ah. Hum. I've aften wondered."

"And travel ta different eras in time?"

"That wauld be exciting."

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Publisher's Note: If you don't want to mutilate this issue send your order on any sheet of paper.

WORLDS TO EAT

WHEN Mary Margaret McBride assembled her *Harvest of American Cooking*, she couldn't have expected it to be the subject of a science fiction editorial. But there's extrapolative meat and drink in this big book, published by Putnam at a hefty $7.50 that's outweighed by its 1000 recipes and even more so by the superlative 220 pages of regional food history.

This New World settlers came to must have been much like the planets we will yet subdue — or be subdued by. From the glaring southlands to the bitter north, there is a temperature range of nearly 200 degrees; air that varies from sinus-clogging soup to nosebleed thinness; land from rich black to glacial strewings to dehydrated sand; wood and plain aleap and awave with life, desert and mountain furtive with it; a garishly lavish living to be made — when men learned how to make it.

For in region after region, MMM tells of Indians thriving and whites starving, the one through know-how, the other because of its lack and fear of outlandish foods: The potato and tomato, among many examples, were considered poisonous, took two centuries to be accepted; when potatoes finally were, "they were often served with a sugar frosting, or cooked with dates, lemons, mace, cinnamon, sugar, nutmeg and grape juice!"

If they encounter intelligent lifeforms on other planets, colonists would be wise to respect the native botanists. For all our spectacularly advanced farm sciences, MMM soberingly quotes the U.S. Department of Agriculture thus: *"The white man has not reduced to cultivation a single important staple during the four hundred years he has dominated the New World."*

Actually, we've lost many instead. Against our choice of fruits and vegetables, the Indians "ate the berries and fruits of nearly 300 different plants. They fried the delicate redbud and boiled the buds of at least 15 other flowers, including marigold, clover and pokeweed. They made jams and relishes from a dozen plants, ate at least 59 varieties of greens." The awesome total is over 1000 kinds

(Continued on page 4)

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(Continued from page 2)

of edibles from bushes, trees, plants, ivies, ferns, grasses, mosses and seaweeds.

Some of these are not losses at all: "Gone from the menu, and not deplored by anyone, is the bear-meat bacon of frontier days, as well as the ash cakes made of acorns, the substitute coffee made from seeds of wild rice and barley, and the bitter drink brewed from dried dandelion roots, said to be 'of a soporific nature'."

Ironically, Indian and pioneer emergency rations sell at luxury prices as, of all things, party treats!

MMM gives a vivid description of uprooting that must be much like leaving the comforts and conveniences of even an overcrowded Earth of the future for some wild, lonely planet: "Most of the women didn't dream what it would be like in that vast land . . . They packed old silver and sprigged china . . . They took onion sets and packets of seeds." In their heads they carried secret recipes and tricks with foods, and, arriving, shivered at tales like that of Bill Jones "about living on grasshoppers for six weeks in the 1870's. They were pretty good, he said, but added that he wouldn't want to stay alive long enough to eat them three times a day again."

That was Oklahoma, rebellious at first but swiftly wooed to abandoned giving — and a savage vengeance which should warn our colonists that land must get in return or become a wrathful dust bowl: "When the 'Black Blizzard' descended upon them, farmwomen fought stubbornly — put milk, butter, water and all other liquids in covered fruit jars, mixed bread and biscuit dough in partly closed bureau drawers, with holes cut in cloth coverings for their hands to do the kneading. A cake made with sour cream and pecans evolved during the horror of dust and drought, to be known as Black Blizzard Cake."

If that lesson sticks, outworlders can eat without halt, perhaps besting Grand Duke Alexis of Russia, who came in 1872 to hunt buffalo, was served 107 dishes, "including sage hen, black bear, curlew, roast opossum with persimmon jelly, coon chops, roast fawn, plover" and numerous odd desserts.

Mary Margaret is sure Mrs. McBride would have taken to deep-freeze, blenders, roto-broilers, mixes and instants. I wonder — it's a hard transition. But I don't doubt the colonist women will learn to cook magnificently in clumsy pots over unearthly fires.

Gov. Alfalfa Bill Murray said: "Cooks could write as good a history any day as the sociologists and the militarists." True. And food for science fiction.

— H. L. GOLD

ALL ORIGINAL STORIES

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CONTENTS

NOVELLA

MARS BY MOONLIGHT by Paul Flehr 6

NOVELETS

THE GENTLEST UNPEOPLE by Frederik Pohl 68

THE MINIMUM MAN by Robert Sheckley 112

SHORT STORIES

THE LAST LETTER by Fritz Leiber 45

THE GUN WITHOUT A BANG by Finn O'Donnevan 88

PERFECT ANSWER by L. J. Stecher, Jr. 101

SCIENCE DEPARTMENT

FOR YOUR INFORMATION by Willy Ley 57

News of Atlantis

FEATURES

EDITOR'S PAGE by H. L. Gold 2

FORECAST 56

GALAXY'S FIVE STAR SHELF by Floyd C. Gale 97

Cover by PEDERSON Showing spaceman an small planetaid passing through Jupiter's maan belt, moving away fram the Sun. Distances fram planetoid: Jupiter, 268,000 miles; Io (Jupiter I), 6,000 miles. Io, traveling to the right, will partially eclipse Jupiter.

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MARS BY MOONLIGHT

By PAUL FLEHR



I

HARDEE parked his jeep across the street from the Administration Building, opened the hatch and got out, gasping.

It was cold midnight, better than the heat of the day, but his breath made a white mist in the thin air. He shivered.

Mars — curse the place! Too hot by day, too cold by night, the air too thin all the time.

He looked up. The stars were densely drifted in the sky over-

Certainly they were criminals — they were in a Martian penal colony. But what were their crimes — and how much time would they serve?



Illustrated by WOOD

head. Both moons were out of sight; the stars made a white light, not bright enough to be obtrusive but enough, after he had turned out the lights of the jeep, to pick out details of the street, the curbs, the sidewalks, the low buildings. The little town did not possess street lights and, on nights like this, few persons bothered to turn on the outer lights of their homes; it wasn't necessary.

Around the corner there was a glow of red. Hardee took his sack out of the back of the jeep, grunted as he threw it over his shoulder

and headed for the welcome glow.

It came from a sign that read:

BUNNIE'S PLACE

Liveliest Night Spot on Mars

IN the doorway, Hardee stood blinking.

It was only a matter of fifty yards or so from the jeep, but he was sweating like a hog because of the weight of the sack. There was no dampness from the sweat — sweat was sucked greedily away into the thin dry aid as soon as it was formed. But it was wearing on the muscles and the skin; it was like pounding a treadmill. He was panting, and noise and light beat out at him.

"Hardee!" yelled somebody. He nodded and waved, not troubling to identify whoever it was. Squinting, he moved inside and found a table.

Bunnie's Place. The Liveliest Night Spot on Mars. That was a flat lie — probably. There might be other places, but no one in Bunnie's Place had ever seen them; and if there were, they were bound to be livelier. What Bunnie's Place had to offer was:

A piano, dried from the desert air and in sad disrepair; on which, at the present moment, someone was trying to play a medley of familiar tunes, handicapped by the fact that all the B-flat keys in the middle octaves were broken.

A bar, stocked with ceaselessly replenished cases of blended whiskey, gin and brandy, but with very little else.

A dozen tables, surrounding a cleared space suitable for dancing, now in use.

A record player with several hundred LP records, mostly rock-and-roll, all well worn.

Two pool tables, the felts of which were held together with sticking plaster.

Two ping-pong tables.

A "library." It contained twenty-six books, all novels, dating from the years 1950-1955.

Nearly one hundred persons, about a dozen of them women, the youngest of them thirty years old.

That was Bunnie's Place. As a night club, it was a failure. As the recreation room for a penal colony, however, it was not so bad; and that was what it was.

Old Man Tavares came over to take Hardee's order.

"You're late," he wheezed. He claimed to have had lung trouble once, back on Earth, in that former life that each of them talked of endlessly. "The Probation Officer was looking for you."

"I'll see him later," said Hardee. "Get me a highball first."

Tavares nodded and limped heavily away. The room was crowded. It was the dark of the moon, or nearly — moonrise would precede the morning sun by only

an hour or so — so that practically all the trappers, like Hardee, tried to concentrate their monthly probation reports into this short period of three or four days.

If a trapper made his report on a full-moon night, it meant losing a night's report. A trapper couldn't afford that. He was on his own, despite being a prisoner. He needed every skitterbug he could catch, to pay his bills and provide his stake for the next month.

THE alternative was to make your report during daylight hours. But that was bad, if you had more than ten or fifteen miles to travel — Hardee had fifty — because at this time of year the desert by day was just plain too hot. Besides, the Probation Officer didn't like having his day's sleep interrupted. And he was a prissy, querulous old man who had little real power — he was as much a felon as any of his charges; there was no one in the whole colony who hadn't been sentenced there — and so he threw his weight around.

"Hello, Hardee."

Hardee looked up, and for the first time smiled.

"Hello, Joan."

Joan Bunnell, the "Bunnie" of Bunnie's Place, was short, warm-faced, honey-haired. Hardee was fond of her; they had slept together several times; they had even talked of getting married. But this was not a place for getting married. There was no rule against it —there were very few rules, everything considered, only the Big Rule against traveling more than a hundred miles from the little town, and a few lesser ones. But how could they talk seriously of getting married when either or both of them might still be married to someone back on Earth?

She had two drinks on a tray, his and one for herself. She sat down, fanning herself. It wasn't very hot — not compared to daylight outside. But it gave the impression, with the room's bright colors and loud voices and the jukebox crashing against the sound of the battered piano, of being a cauldron.

"Drink up," said Joan Bunnell, toasting him. "You've got to keep your liquids up."

"You gotta keep *something* up," bawled an ape's voice from behind Hardee. It laughed raucously.

Hardee turned, frowning. He recognized the voice. The man's name was Wakulla.

There, thought Hardee irritably, was the kind of man this place was made for. You knew just by looking at him that this was no bank embezzler or forger; this was knock-them-dead and loot-their-pockets. There was no finesse or cunning to those sloping shoulders and the curled black body hair

that held his thin shirt cushioned an inch from his chest. The man was an ape.

He boomed with an ape's bellow: "Hardee, you dumb chump, how many skits did you bring in this time?"

HIS shout didn't exactly silence the room, but it did create a small oasis of quiet — an area roughly equal to the reach of his enormous fists. He was not liked. But he was feared; in a little world without law, he was feared very much.

Hardee said clearly: "A hundred and fourteen."

"In there?" Wakulla kicked the sack beside Hardee's chair.

"Only about a dozen. The rest are outside in the jeep."

Wakulla nodded, then grinned an ape's grin. "Good for you, Hardee! You won the pool this month. You know what you won?"

Hardee waited.

"You won the privilege of buying drinks for the house!" Wakulla yelled. "Come on, boys. Line up!"

Hardee glanced at Joan Bunnell and pressed his shoulders against the back of his chair.

There was a chance, he thought judiciously, that he could take Wakulla. The ape was inches shorter than himself, and that might make a difference. Everything else was going for Wakulla — reach, weight and the indestructible animal combat urge that made all other considerations unimportant. Still, there was that chance.

But it was better to avoid a fight.

Hardee took a deep breath and managed a grin. "Fair enough," he said.

Wakulla scowled, waiting.

"Why not?" said Hardee reasonably. "But if I win that for bringing in a few lousy skitterbugs, what do I win for this?"

He hefted the sack to the top of the table and opened the drawstrings.

There were a couple of skitterbugs on top. He pulled them out and laid them on the table, where their long jointed legs began to twine feebly under the room lights. Then, beneath them, was what he was looking for.

He took it out, stood up and shook it loose.

It hung from his hand limply. It was a gray canvas coverall, filthy, sweat-stained, spotted with what looked like blood.

Wakulla demanded: "What the hell is that?

"What does it look like? It's a coverall. I took it off a man I found out in the desert three days ago. On foot."

IT created a sensation.

Old man Tavares limped up, pushing his way through the

men around Hardee's table, and clutched the filthy garment. "The man who was wearing it. He was dead?"

"What do you think?" It went without saying. It was possible to walk around the desert for short distances, but not for anything like the distance from one prospector's prefab to another. For that you needed a jeep. "I buried him out in the desert. He was a stranger."

"A stranger!" Tavares let go of the garment and stared at it.

Hardee dropped the skitterbugs back into the sack and closed it; as the light was cut off, the stirring stopped. He downed his drink.

"You know that old mine, Wakulla — out between your place and mine? I was out there at daybreak and I found this fellow. He wasn't dead then."

Wakulla growled: "But you just said —"

"He was close enough to it. He was face-down on the sand and not moving. I stopped and went over."

Nearly everybody in the room was clustered around now, listening. The penal colony had been in existence for five years now — Hardee himself had been there for nearly three — and this was the first time a stranger had ever appeared. It was an event of the first magnitude, almost as though someone had finally completed his term, or as though, somehow, radio contact had been established with Earth.

Hardee's hand closed over the girl's.

"I tried to lift him up," he said. "He was still breathing, but not too well — you know, gasping. Panting. You know how it was when you first got here? Only it seemed even worse with him. He was on his way out. And then he opened his eyes and looked at me."

Hardee paused, remembering the dry, opaque eyes in the tortured face.

"It wasn't just thirst and exposure," he said, "because the man was pretty well scarred up. One of his arms was broken. I think. And — well, look at the coverall. You can see the blood. That's how he was. He raised his head and he said something. I could hardly understand him. And then he sat up and began to choke. And he died. He was pretty far gone, as I say."

Joan Bunnell demanded: "Hardee! What did he say?"

Hardee put down his glass and touched the coverall thoughtfully.

"He said: 'Thank God. A man!'"

II

FOUR hours later, Hardee was driving up to the shelter of his own prefab.

The moon was peeping over the eastern horizon in a wash of white light that picked out the mountains around them. Hardee opened the door, looking up, gasping — that was the way it always was when you had been sitting for a while. In this thin air, when you began to lift yourself, the lungs strained for oxygen and found it only with difficulty.

Let's see, thought Hardee, staring at the broad white moon. That would be Deimos. Or Phobos. Some said the big one was Deimos, some the little. Nobody knew for sure, or nobody had yet convinced the rest of the colony. Old man Tavares was the only one who was really likely to know, and he only laughed when he was asked.

Hardee thought the big one was Deimos. That was the one that was bright and useful, and for weeks on end you didn't see it at all. The other one — what was the use of it? It was a rapid little comet, steel-blue and brighter than a star, yes, but not bright enough. It moved fast, fast; every night it soared across the sky two or three times. But it was no good for hunting.

He got out of the jeep, wheezing.

He left it with its motor going— he would be right back — and twisted the combination that unlocked the door of his home, his and the boy's.

Not everyone bothered locking the doors when they went out, but it was habit with Hardee. That was the way he was; and, besides, he had something more precious than most to protect.

Inside, he dumped his supplies on the floor and quickly looked into the boy's room. That was all quiet. He closed the door gently and returned to the larger room, stowed the perishables in the freezer, left everything else where it lay. He pulled out of his pocket the little sheaf of vouchers that represented the surplus skitterbugs — those whose profits had not been used up in paying for the supplies, for the installments on the jeep, the prefab itself and all of its furnishings.

HE locked the door behind him and rode out into the desert.

There was still an hour of moonlight before the rising of the sun. It didn't do to waste hours; there were just so many hours in the month when the skitterbugs could be caught.

Old man Tavares said that the skitterbugs weren't animals — they were machines.

Tavares might know. He had been in the colony longer than most, and although his mind was wandering and he sometimes thought there was a war going on and all of them were in a concentration camp, he had once been

an electronics engineer. Or so he claimed.

Tavares rambled about mussels filtering iodine out of sea water and plants splitting oxygen out of CO_2. Maybe it made sense and maybe not, but what he said was that the skitterbugs all came from one master skitterbug that had been made in a laboratory, back on old Earth. There was iron in the sand, said old Tavares, and other elements, and so somebody had invented a sort of basic reproducible pattern of a machine, one which was simple and operated by sunlight, and could extract from sand and rock the ingredients necessary to produce other machines just like itself.

Maybe so. Maybe not. It was true that the skitterbugs *looked* like machines; they were metal. And yet they grew. Maybe so. The theory was simple. Even Hardee could see that, and *he* had been only a traffic policeman in the old days on Earth. Or thought he had.

It didn't matter much, one way or the other, to Hardee. What mattered to him was that during the hours of moonlight it was possible to capture the skits; and that if you captured a hundred of them, you kept even with the necessary payments for supplies and installments to the Probation Officer; and if you captured more than that, you could even afford luxuries. And that mattered. Not so much for Hardee — he had too much self-punishment yet to inflict on himself for that — but for the boy.

The boy deserved a few luxuries. For he had nothing else.

A MILE from the prefab, Hardee switched on the RDF unit.

The radio antenna that sprouted from the tail end of the jeep began to circle slowly, feeling for broadcast radio energy. That was the important thing about moonlit nights.

The skitterbugs, whatever they were, operated on light energy. When light hit their domed absorbent carapaces, the tiny circuits inside them busily converted the light into heat and kinetic energy. But not quite all of it. There was a certain amount of waste in the form of free radio impulses. This the RDF scanner was designed to locate.

Come to think of it, Hardee pondered, maybe that certain amount of waste was no waste at all. If it was true that the skitterbugs were artificial, it might perfectly well be that the waste was designed into them, for exactly the purpose for which it was used — to locate and harvest them.

But there had to be light to make them radiate and thus be found.

By day, the blinding sunlight made them radiate like mad, of course, but that was no good. In daylight, the skitterbugs could outrun a man, even a jeep; they produced strong signals, but what was the use of that when you couldn't catch them?

Starlight wasn't very satisfactory either. On a particularly bright night, you might, if you were very, very lucky, pick up a few stray wisps of signal, but only provided you happened to blunder within fifty yards or so of a skit. And then the impulses were too weak to be much help for direction finding. No, it had to be moonlight—the big moon—energy enough to make them radiate, not so much that they could get away.

Hardee checked the little blips of light on his cathode screen and marked a concentration of a dozen or more. Undoubtedly half of them would be under the legal limit. Half a kilogram was the minimum; you could be fined the vouchers for a dozen full-sized skits for bringing in one under the limit. But with any luck at all, he should be able to bag one or two of the full-grown ones before the others succeeded in tunneling into the sand and out of sight.

Hardee hunted until the broad red rising sun began to heat the desert, and then raced back toward the prefab, with four skitterbugs in the shielded locker. He circled the area where a long-abandoned shack marked the old mine, then took his foot off the gas, paused and looked back.

Under the faded board sign that said almost illegibly "Joe's Last Hope Shaft No. 1" was the shallow grave Hardee had dug out for the stranger. There had been no name, no papers, nothing in the pockets that told him anything, and accordingly there was no inscription on the little wooden headboard Hardee had hacked out in the growing heat of the morning sun.

Hardee sat there for a moment, his mind vacant, vaguely wondering about the man he had found. But it was growing hot. He put the jeep in gear and headed again for home.

THE boy was awake and waiting for him at the door.

"Daddy, Daddy!" he chanted, looking grave and sleepy. "Did you get it?"

"Hi," said Hardee inadequately. He bent over to pick the child up.

Chuck was small for his age, a serious-faced, brown-eyed, dark-haired little five-year-old. He said immediately, throwing his arms around Hardee's neck: "Daddy, did you get the tractor? I've been thinking about it! I woke up three times all night while you were gone."

"I'll bet you did," said Hardee.

He tousled the boy's hair, yearning. "Well, I got it. It's in the sack."

"Oh, *Daddy!*" crowed the child. He wriggled frantically to be put down.

As soon as he was on his feet, he raced into the house, through the little foyer where the foot-scrapers waited to get sand off the feet of visitors, and the hooks lined the wall for their clothes. He made a beeline for the pile of supplies. By the time Hardee had got rid of his sand boots and sweat-jacket, the boy was making a horrible scraping sound, tugging crates of canned goods out of his way; by the time Hardee reached the door of the room, Chuck had already opened the sack and was feeling inside.

"Oh, *Daddy!*" he cried again, taking the tractor out. It was an exact model of a jeep with a bull-dozer blade mounted before it for sand moving, battery operated; it was controlled through a little hand-plate connected to the tractor with a long, thin wire.

"I've only got one battery," Hardee warned. "Make it last. I don't know when I can get another one."

"Oh, that's all right, Daddy. I don't mind *that*."

Experimentally, the boy turned on the power. The tractor lurched, whined, began pushing its blade across the linoleum floor.

The boy chortled: "Wait till I get outside! I'll stay near the house, Daddy, I promise. I'm going to make a fort and a castle! I'm going to dig a long canal all the way from the house to the trash burner! I'm going to get the soldiers and my red truck and I'm going to make an Army camp that—"

"Sure you are," said Hardee, patting the boy on the head. "But first you're going to have breakfast. Right?"

HARDEE managed to keep himself awake while the child and he had breakfast. He even managed to stay awake for nearly an hour afterward, but that was the limit.

He stripped off his clothes, hung them neatly and fell into his bed. Outside, the boy was whooping at his new tractor.

It wasn't, Hardee admitted to himself, the best possible arrangement for him and the boy. But it was important that he be awake nights. And the boy was still too young to be trusted to roam around by himself while Hardee was out hunting.

This way, they didn't see as much of each other as Hardee would have liked — and, heaven knew, it was tough on Chuck to have to find his amusement for eight hours every day, to take his own meals at least twice a day, even to put himself in for a nap when the big hand and the little hand on the clock met at 12. Chil-

dren are most marvelously adaptable organisms, and Chuck did all those things; but it was too bad, all the same.

But what else was there to do?

This way, the child was completely alone only at night—when Hardee was out hunting, and Chuck himself was asleep. True, that wasn't entirely safe. Something could happen — a fire, a sudden sickness, even a fall out of bed. But it was better. And by day, when the child was up and about and thus more likely to run into trouble, at least Hardee was close at hand — even if asleep. Chuck could be trusted to wake him up.

Hardee sighed and turned over. Overhead, he heard the engines of a transport plane, and, outside, excited shouts from Chuck. Hardee could imagine him cavorting and waving at the plane.

No, thought Hardee, covering himself lightly and closing his eyes, it wasn't a perfect existence for either of them; but what else could you expect in a penal colony?

III

IN the light of the morning, Joan Bunnell closed the door of her room and began to take off her clothes.

She put on light sleeping shorts and a short-sleeved top, patched and faded but the best she had been able to buy, and stood at the window, looking out on the desert. She was facing west, away from the sunrise. She could see the black shadows streaming away from the sun-touched tops of the buttes and dunes. It was going to be a hot day.

This time of year, you could say that it was going to be a hot day every morning and never be wrong. Funny, she thought, she'd never had any idea that Mars was as hot as this. Back in the old days. Before. She hadn't, in fact, thought about Mars much at all.

There was a lot of talk, she remembered cloudily, about rockets and satellites, and even some dreamers who ventured the hope that men would someday touch the surface of the Moon. But Mars? That was for the Sunday comics. She'd paid no attention to that sort of nonsense. She most especially never had dreamed that someday she herself would be a prisoner on Mars, stripped of her freedom and her memories.

Neither had any of the others—no freedom, no memories.

She cranked down the filter panels that would keep out nearly all of the heat, and went over to her little dressing table to complete her going-to-bed ritual. Cleansing cream. Skin cream. Fifty strokes of the brush on each side of her scalp. Carefully rub-

bing in the cream below the eyes, behind the jaws, along the line of the throat — the places where wrinkles and sagging would start first.

No, she told herself brutally, *had* started. This hot, dry air was devastating on a girl's skin and hair; it was impossible to let things go for a single day.

She was sleepy, but she sat on the edge of the bed before lying down.

It was impossible for her to go to bed without performing, once again, another and different sort of daily ritual.

She looked across the room at her reflection in the mirror, wondering. Then, hopelessly, automatically, she pushed back the short sleeves of her jacket and examined the skin of her inner arm, pulled back the hem of her shorts and examined the flesh of the thigh.

There were no needle marks.

"Dear God," whispered Joan wretchedly. She had looked a thousand times before and there had been none. Well, maybe she ought to accept the evidence of her eyes as definite; whatever it was that she had been sentenced to this place for, narcotics addiction was not the answer.

It was the most severe portion of the punishment, that not one of the prisoners knew what they were being punished for.

FRAMED on the wall, over the head of her brass bedstead, was an excerpt from *Martian Penal Colony Rules and General Information.* She had never seen the manual itself, though it was generally understood that the Probation Officer had a copy. But the excerpt she knew by heart. Everyone did. Nearly every room in the colony had it framed and hung:

> You are here because you have been tried, convicted and sentenced for a felony.
>
> In former times, felonies were punished by prison sentences. This ordinarily failed of its purpose, in that it did not act as a deterrent to repetitions of the same offense.
>
> In recent years, a technique has been developed of erasing memories after a certain date — usually, for technical reasons, 16 October 1959. By virtue of the XXVth Amendment, provision for the use of this technique has been incorporated in the Uniform Penal Code of the United States, and under it you have been sentenced to rehabilitation and to transportation to the Martian Penal Colony for an indefinite period.
>
> You will be observed from time to time, and the degree of your rehabilitation evaluated. When you are ready to return to normal life, you will be paroled.
>
> It is not in the interests of your best efforts toward rehabilitation that you be advised of the

crime of which you were convicted. However, the categories covered by the Uniform Penal Code include:

Murder, first degree.
Murder, second degree.
Manslaughter, in connection with a felony.
Grand larceny, grand fraud and embezzlement — but only after the third offense in each case.
Habitual use of drugs, without voluntary rehabilitation.
Habitual prostitution.

That was the list. Joan knew it well.

It was a choice selection, and it had to be one of them that she was guilty of. But which one?

Joan Bunnell stared long at her own face, wondering if those eyes were the eyes of a murderess. Had she killed a husband, a lover? Perhaps a parent, seeking to inherit their wealth? Perhaps even a child — had she *had* a child? Could she have given birth to a baby, perhaps a boy small and grave-faced like Hardee's youngster — and could she, in madness or in hate, have killed the child?

It was not fair to carve out a piece of her mind and cast it away.

JOAN lay back on the pillow, her closed eyes cushioned against her forearm by her own long hair. It was the cruelest of all punishments, this mind-washing they called rehabilitation.

The Arabs chopped off a hand, the old English lopped off a finger or an ear, the Indians gouged out an eye . . . and those were kinder things, much kinder; for at least the victim knew exactly what he had lost.

But here was Joan Bunnell, thirty-one years old, according to the records in the Probation Office. She remembered her childhood very well, in a monotonous brownstone two-family house on a monotonously uniform block in Philadelphia. She remembered going to school and she remembered her first job; she remembered a birthday party, and, closing her eyes, was able to count the candles and so know that she had turned twenty-one.

She remembered years after that, loves and partings. She remembered yearning after the man she worked for, and that he married someone else. (Had she killed him?) She remembered that life had coursed, full and complete, with days compact with trivia and detail, for all the days of her life, up until a certain day—yes, the sixteenth day of October, in that year of 1959 — when she had got up in the morning, dressed herself, eaten breakfast at a corner drugstore, got into a subway train to go to work—

And woke up in a place where she had never been.

What had happened?

There was no clue, except the framed excerpt over her bed, and the gossip of the other prisoners.

Like her, they had awakened; like her, they had been questioned endlessly; like her, they had been confined. And, like her, they had been put, blindfold, into an airplane, flown for some hours—and released here.

They knew that they had committed a crime. Of course. That was why they were here.

But what crime?

How many years had been lopped off their minds?

Joan lay against the pillow, too tired to weep, wept out.

After a while, and just as she might have slept, she heard a distant roar of engines growing closer.

She got up and looked out the window, pulling back the screens that cut down the light and heat.

A silvery plane was limping in low over the sand hills, from the west. It didn't circle or seek a traffic pattern; it came in and down, dumped its landing flaps, along the level sand that was kept bulldozed flat for it.

Joan, no longer sleepy, got up and began getting dressed again. The plane meant supplies — perhaps new clothes, and she could use them; perhaps some toys that she might be able to get for Hardee's son. Most of all, the plane might mean a few new inmates for the colony.

In slacks, blouse and a broad-brimmed sun hat, she hurried out after the growing crowd around the rickety old plane.

WAKULLA had stayed over—not even the son of Polish miners wakes up and crosses the desert after drinking a bottle and a half of rye.

"I got to see these guys," he said thickly, grinning painfully. "I got to see what a free man looks like, in case they ever let me out of here."

"They never will," muttered someone, and Joan edged away as Wakulla lifted his squat head and looked around to see who it was. She wasn't looking for trouble.

The Probation Officer came hastily up, panting eagerly for the big moment of his being.

"Out of the way!" he quavered. "Here there, please! Out of the way, Saunders! Here, let me through, Tavares! Come on. Please!"

"Let the keeper through!" bawled Wakulla, forgetting about the man who had muttered. "Hurry up, Tavares, you old bag of bones!"

The three sputtering propellers of the aircraft coughed and choked, and then stopped. Tavares and two other men hurried to push a metal ladder on wheels—with great dif-

ficulty — through the clinging sand up to the side of the plane, as the door jerked and then flew open.

Even Joan Bunnell, who was far from a mechanic, had not grown accustomed to the sight of a Ford tri-motor lumbering around in the thin air of Mars. That washboard fuselage, those ancient wood-bladed props, they were period accessories from an old movie, not anything you ever expected to see in the air —anywhere. True, some of the men talked wisely about how the old Ford was a great plane for its time and a record-breaker; and they maintained that in all sorts of out-of-the-way places little out-of-the-way airlines had for decades kept up a sort of service using the Fords . . . but on *Mars?*

But there it was, as it had always been for all of them — it was the ship each of them had arrived in. And by and by the wonder had grown duller, submerged in the greater, special wonderment that each of them had, that went incessantly: *What was it that I did that got me sent here?*

THE door of the plane swung rasping on its hinges, catching the bright hour-high sun and sending blinding rays into the faces of the colonists. Behind the glare, a man poked his head out—an old, haggard head.

"Hello, Mr. Griswold!" cried the Probation Officer in a thin high voice, greeting him. He waved violently. "Here I am, Mr. Griswold!"

This was the Probation Officer's *time*. Barring this time, he was nobody — not even in the penal colony of brain-blotted felons, not anywhere. All his days and nights at the penal colony were alike; they were partly bookkeeper's routine and partly file-clerk's duties, and partly they were without any shape at all. They deserved little respect from anyone and they got none — all those days. But on the few, the very occasional, days when the Ford transport waddled in — then he, the Probation Officer, he was the one that Mr. Griswold spoke to.

Mr. Griswold came with the plane, always. Mr. Griswold was the only man they ever saw who went back to freedom. And the Probation Officer was the link between the colony and Mr. Griswold — and, through him, the rest of Mars, and more remotely, that unimaginably most distant of dreams, Earth and home.

"Hello," murmured Griswold in a faded, wispy sort of voice. He stood there, haggard and blinking in the sunlight, nodding to the Probation Officer. "I've got some new mouths to feed," said Griswold, and grinned a ruin of a grin, as though he had meant it for a joke but could never laugh again.

Joan Bunnell pressed closer,

though she disliked Griswold and usually, instinctively, stayed well clear of him. Each time Joan saw him, he appeared decades older, degrees more demon-haunted than the time before. She knew his age well enough, because she remembered him from her own trip to the colony, three years before. He had been about fifty then, could be hardly fifty-five now.

But he looked seventy at the least, perhaps some remote and meaningless age past a hundred. His hands shook, his voice shook, his face was a working collision of jumpy muscles and fast-blinking eyes. Drugs? Drink? A terminal disease? It could hardly be any of those things, Joan thought; but if it was his job that made him so decrepit and so weak, then working conditions on the outside of the penal colony must be even worse than within it.

And there was one other thing about Mr. Griswold. He never left the old plane.

In the three years of Joan's experience, he had yet to climb down that metal ladder to stand on the ground.

SINCE Griswold would not come down the ladder, the Probation Officer eagerly and importantly puffed up it.

There was a moment while he and Griswold talked to each other, low-voiced, at the door to the cabin of the old tri-motor plane.

Then the Probation Officer stepped aside. "Let 'em out, please," he ordered. "Let the new fish come down the ladder!"

Five men and women began to file out of the plane, squinting in dazed unbelief at the sunwashed scene around them.

Wakulla caught sight of one of the women and yelled an animal's cry of glee. "That's for me!" He meant it for a playful aside, but that voice was not meant for stage whispers. He grinned at the woman; then his expression changed to astonishment.

He wasn't alone. There was a gasp. "She's got a kid with her!" cried one of the women beside Joan Bunnell. Joan caught her breath. That was very odd — and very rare, and very precious. There were four babies in the colony, born there, three of them in wedlock and one in doubt. But this was a girl of five or six, not a newborn. That was almost without precedent — the only other child who had been *brought* to the colony was Hardee's boy.

A dozen hands helped the woman with the child down the ladder. They led her, with the others, across the hot sands toward the shelter.

Joan cast one glance at the plane. Already Tavares's crew was beginning to unload crates of supplies. Already the tied sacks of

skitterbugs, feebly stirring in the light that filtered through the burlap, were being trundled out on wheelbarrows to be loaded into the plane for return to — where? No one had ever said. Back to Earth, perhaps. Perhaps not.

The glass windscreens of the tri-motor's battered old nose glittered opaquely.

Joan glanced at them and then away — there was nothing there; she never could see inside the cockpit; no one ever had. Behind those glittering windshields were, undoubtedly, the pilot and co-pilot—for surely Griswold was no aviator, not with that tic and those eyes. But she had never seen the pilots, not even when she herself was part of the plane's cargo, coming here. And she didn't expect to see them now.

But something was nagging at her.

She looked again, and her eye was caught by old Dom Tavares, who should have been helping to load the plane, and who instead was standing in a queerly tense attitude, staring at the open door.

Joan tried to peer past the door, but it was hard to see from the bright sun outside into the black shadows within. There was Griswold, and there was the Probation Officer, surely—at least there were two shadows. And the taller, fatter shadow was handing something to the lean, bent one — something that looked like a rag, or an old garment; they were talking about it.

Joan hesitated, wondered if it was worth thinking about.

But there were the newcomers —new faces, when all the old faces were worn so familiar.

And Tavares was, it was perfectly true, getting a little odd in his ways anyhow. Everyone knew that.

She turned, dismissing whatever it was that disturbed Tavares, and hurried after the newcomers as they were shepherded into the recreation room.

BY day, the "Liveliest Night Spot on Mars" was even less attractive than by night.

The night before had been a big one; the signs of it were all over the room, overturned chairs, spilled drinks, the grime of a couple of dozen men in town. No one had taken the time to tidy up — that was done later, usually in the waning heat of the afternoon — and the new arrivals stared around them with revulsion in their eyes.

"They're very young," someone whispered to Joan. She nodded. One of the women was middle-aged, but the one with the child was just into her twenties. And of the men, one was little more than a boy.

He was a blond-haired youngster, his eyes violet and innocent,

his face far from the time of shaving. What, Joan wondered, had brought *him* here? For that matter, what was the crime of the dowdy-looking, plump little woman who was staring around in such panic?

The colonists were all over the new women — particularly Wakulla, gallant with an ape's clumsy politeness. "A chair!" he bawled. "A chair for the lady!" And he wrenched one from Joan's hand. "I'll take the calf to get the heifer," he whispered hoarsely, with an exaggerated wink, and slid the chair clattering to the girl with the child. The girl only stared at him fearfully.

Joan tried to stay back and give the newcomers room.

She had a vivid sense of what they must be feeling; she remembered; she could read the writing in their eyes, and know what they must be thinking:

The strangeness of their surroundings.

The sudden shock. (For it was always a shock, everyone agreed on it; one minute you were going about your business, a minute later you woke up somewhere else. A strange somewhere, and removed in time — in a white-walled room, with a couple of tense and worried-looking doctors and nurses around you, with television scanner lenses in the walls . . . and, very quickly, a tense and worried-looking man in uniform coming in to talk to you, to tell you that you had become a criminal, in a life that was now wiped out of your mind, and that you were on Mars, headed for a penal colony. Shock? It was a wonder that it didn't prove fatal. And perhaps for some it had; they had no way of knowing.)

But more than these things — after that first shock wore off and you had become reconciled to the fact that your whole life had somehow been perverted into that of a criminal — after you had been bundled, blindfold, into that rattling old three-motored plane and flown for windowless hours across the unseen Martian deserts — then you arrived.

And that was bad.

For there was always the uneasy, shamefaced question in the crowd: *Does this one know who I am? And that other one — why is he grinning like that? Does he know what I did? And what did he himself do, to be in this place?*

Nobody ever got over it.

But the early days were worst of all, before the pain became an accustomed one.

THE heat was beating in on them. The woman with the child, half afraid, half contemptuous of Wakulla's gallantry, leaned white-faced against the back of her chair, the little girl with a thumb in her mouth and the other hand

clutching her mother's skirt beside her, watching silently.

The boy was talking — his name was Tommy and he had told them he was seventeen years old. "That's what they *tell* me, he said, with a painful effort to be adult and sure of himself. His voice was a soft high mumble, hardly the voice even of a seventeen-year-old. "But — I don't remember that. Really, I don't. The last thing I remember, I was twelve!"

Twelve! Joan made a faint sound; almost she patted him on the head, though he was taller than she. Twelve! What sort of criminal could have hatched at twelve? Even at seventeen, the thing was ridiculous! But somewhere, this child had lost five years.

She tried to explain it to him: "You must have done something, Tommy. Maybe you got involved with the wrong bunch at school — who knows? But somehow, you went wrong. That's why they send people here, you know. It's the new law. Instead of putting someone in jail and keeping them there — that would be a waste, you see, and cruel — they wipe out the part of the minds that has the criminal pattern in it. They go back erasing memory, until they come to a part that is clean and unaffected, not only before the crime was committed but before, even, the first seed of the crime was planted. That's why none of us know what it was we did. It's been taken away from us. We've been given a second chance. We should be grateful."

But should they? It was the old question; she cast it off.

"Then," she said, "after they've cleaned out our memories and taken us back to the right path, they send us up here. To Mars. This is a colony where we can try to get reoriented and—" She hesitated. And what? "And go back to normal life," she finished strongly, though there was still the relentless reminder of her memory that *no one* had ever gone back. "It isn't so bad, Tommy," she promised.

He didn't look convinced.

SOMEONE was calling her name: "Joan! Joan, come here, please!"

It was old man Tavares. He was standing in the door, his face blenched a muddy mottled color in spite of the dark the sun had given it.

She turned and hurried to him. Heat-stroke, she thought at once. It was far from uncommon, especially when a man as old as Tavares had to work in the blinding sun helping to lift boxes and bales.

But he caught her feverishly by the hand and drew her outside into the sunwashed street.

"Joan," he whispered raggedly,

terror peeping out of his eyes. "Joan, can you borrow a jeep?"

"Why—I suppose so. But—"

"Take me to Hardee," he begged. His lined old face was quivering with senile worry and fear; his dry, hot hand was crushing hers. "Quickly! It will take hours for us to drive there. And we may not have hours, because they can fly in the plane! Quickly, for his sake and your own!"

Joan said reasonably: "Now hold on, Dom. You're excited. Sit down for a minute." She tried to lead him back into the recreation room. She'd seen the signs coming on, she reproached herself, when he behaved so queerly at the plane; she should have done something about it at the time. Poor old man! "Come on, Dom," she coaxed. "I'll get you a nice cool drink of water and—"

"Quickly!" He planted his feet firmly, surprisingly strong, and halted her. His eyes were terrified; they flicked past her, out toward the plane. "You don't understand, Joan! The Probation Officer, he has told Griswold about the stranger Hardee found. It is a terrible thing, do you not realize?"

"Stranger?" she repeated.

"The dead man, Joan! I saw them with the coverall, and then I knew. So I came close and listened and, yes, he was telling Griswold. And Griswold was frantic! Of course. Hurry, Joan!"

Doubtfully, she said: "Well, let's see. You want to go out to Hardee's place? Wakulla's not far from there. I suppose I can persuade him to take us out, though he's got that new woman on his mind. It's a bad time of day, but—"

"Hurry!"

The panic in his voice finally reached her. All right, she thought, why not? She could handle Wakulla — even in the face of the constant threat of a boiled-out motor and trouble, the natural risk you took in driving across the sand by summer daylight. But Tavares gave her no choice.

Still she protested, half-resisting: "Can't it wait until night, Dom? Surely it can't be as serious as all that. After all, what's so dangerous about a stranger? I suppose he's merely a man who got lost in the desert — at most, perhaps he escaped from another prison camp, somewhere else on Mars, but certainly that doesn't—"

"Mars!" Tavares hissed in a terrible whisper. Convulsively he squeezed her arm. "Joan, do you not understand? All these years—and you still think that this is *Mars?*"

IV

HARDEE woke groggily to the sound of the boy's voice calling: "Daddy! Somebody's coming!"

It was only about noon.

Hardee swung himself out of bed, half asleep, his eyes aching. He stumbled over to the window and pushed back the shutters.

Fierce light beat in. He blinked, dazzled. The sun was directly overhead. The boy had been right; there was a jeep coming, still a long way off, but he could hear the faint whine and echo of its motor as the driver shifted gears, coaxing it around the worst of the bumps, trying to keep it from overheating. Someone driving at this time of day!

It must be an urgent errand, he thought, and began to clamber into his clothes. He couldn't make out who was in it, in the blinding light; but by the time he was into his shirt and pants and ready to come downstairs, he could hear voices. Tavares and Joan Bunnell — and his son, crying out to greet them.

"Aunt Joan!" Chuck was babbling excitedly — it was a great day for him when there were visitors. "Look at what Daddy got me, Aunt Joan! A *tractor*. And see, I can make a farm with Alice and Alfie — see? This is my tractor, and Alice and Alfie are the cows!" Alice and Alfie were his pet skitterbugs. Hardee had captured them with the regular bag; but they were undersized, not of legal limit to bring in, so he had given them to the boy to play with for lack of a kitten or a pup.

Hardee nodded without speaking and started down the stairs. The child was pushing the quiescent skitterbugs around on the floor with the tractor, whooping with joy. In the filtered, screened-down light that came inside the prefab, they had just enough energy to try to creep out of its way.

Joan stared up at Hardee, began to speak, then caught herself. She took the boy's arm lightly. "Chuck," she said, "listen to me. We have to talk to your father. Go outside and play, please."

He stood up, his eyes wide and disturbed. "Oh, let me stay, Aunt Joan! My tractor's—"

"Please, Chuck."

He looked up at his father, hesitated, and started toward the door. Then he paused, looking at Wakulla and Tavares; even in his child's mind, he knew that it was not usual to see them there.

With a child's response, an incantation against evil, he summoned up politeness: "Hello, Mr. Tavares. Hello, Mr. Wakulla." He hesitated, then remembered one more cantrip. "Don't worry, Daddy," he piped. "I'll be carefully to stay in the shade."

JOAN Bunnell, torn, said: "There isn't any shade. I tell you what." She glanced at Wakulla. "You'd better play in Mr. Wakulla's jeep. Make believe

you're driving it all by yourself."

"Whee!" The boy shouted gleefully. He dropped tractor and skitterbugs, flung the door open and leaped out into the sand.

Sunlight flared in.

One of the bugs — it was impossible to tell which; only the boy could tell them apart—lay squarely in the path of the sun's rays. There was a sudden crinkling *snap* of sparking energy as the light it fed on struck it; like a released spring, the little spidery metal thing spun around, leaped out the door and was gone.

It was like a meteorite flung up into space, so quick and glittering.

Hardee closed the door behind it and turned to face the others. "What's the matter?" he demanded.

Old man Tavares sank into a chair. "That stranger," he croaked. "The Probation Officer told Griswold about him, and now there will be trouble. For there is a lie here, Hardee. This is not the sort of place we are told it is. It is not on Mars; we are not criminals. And there must be a reason for this lie. What reason? I do not know, but whoever is telling the lie will protect it."

He leaned forward. "It may cost your life to protect it, Hardee! Others have died, and I think for the same reason — you are in danger, and, with you, all of us because of the fact that you told us!"

Hardee shook his head. He was still more than half drowsy. The world had not yet come into focus; he was drugged from heat and sleep and none of this was making sense.

He said thickly: "What the hell are you talking about, Tavares?"

"I am talking about death!" said the old man. And then he stopped, and there was sudden fear on his face. "Listen!"

Outside, a noise. An engine. No — more than one.

"Someone coming?" guessed Hardee. "A jeep?"

"It is death that is coming," sobbed Tavares. "That's no jeep, Hardee. It is the plane, coming for you!"

THEY ran to the door and flung it open.

It came from the east, like a faint angry snarl of bees, the sound of the Ford tri-motor's three laboring engines.

"There it is!" cried the girl. "Look, over the dunes!"

Sunlight glinted off a wing. It was the plane, all right, hardly five hundred feet up. It was heading off to one side, more in the direction of Wakulla's hut than Hardee's; clearly, whoever was flying it was unfamiliar with the exact locations of the prefabs.

But clearly also, it would not

take long to straighten them out.

"Come on!" said Hardee, and flung out the door. Whatever it was that Tavares was talking about, something of the old man's panic and desperation had reached him. "We'll have to hide! Wakulla, you know the old mining shack? Let's go!"

Hardee caught his son up and raced for his own jeep, leaving the others to follow in Wakulla's.

The heat was murderous. Before they had gone a hundred yards, the radiator needle was climbing; in a hundred more, it was pressing perilously against the backstop. But Hardee couldn't wait to baby the motor now, not when the plane had begun to wheel around toward them. Already it might be too late; it was quite possible that the plane had spotted them. But it was at least a chance that the plane had not. A desert drenched in a vertical sun is not easy to scan, and there was a lot of it.

Next to him, on the seat, the little boy looked up wonderingly at his father, and was silent.

"It's all right, Chucky," Hardee said, the automatic lie coming to his lips. It *wasn't* all right. There was nothing all right about it.

But it satisfied the boy. He squirmed around and knelt backward on the seat, peering out the rear mirror. "They're catching up, Daddy!" he yelped cheerfully. "Step on it! We'll beat them!"

Even through heat and worry and overpowering weariness, Hardee had enough left to feel fondness and pride for his child.

At the abandoned old mine site, Hardee spun the jeep in toward the shed. He parked it under the overhang of the dangling board sign marked *Joe's Last Chance No. 1,* crowding over as far as he could to make room for the other. In a moment, Wakulla drove up beside him and squeezed in.

CLIMBING out, they stared at the hostile bright sky. "Stay under the shed!" Hardee said. "If they've seen us—"

But apparently the plane had not.

They could see it clearly, dropping down over the dunes. It picked out Hardee's prefab, banked and swung around it twice; then leveled off, headed out across the desert, banked again, came in and landed bruisingly on the uneven sand.

It was a rotten landing, but as good as could be expected for drifted sand. A tire might have blown or a wheel collapsed, but did not; the plane was lucky and the hidden fugitives were not; they would not be saved by a crash that would destroy their pursuers.

The plane stopped, perhaps a quarter of a mile from the prefab but well out of their sight. The motors died.

They waited.

"Now what?" demanded Wakulla angrily. He had been dragged away from a woman, and made to drive bouncingly across the hot sand with a hangover, and there was talk he hardly understood of danger that was never quite clear, and he was irritable.

Hardee climbed to the top of the old shed wordlessly. He stretched tall and peered toward his home.

"Can't see," he called down to the others. "I can't even see the house. I wonder what they're doing."

"Come down," said old man Tavares in a tired voice.

He sat on the sand with his back against the weathered boards, his eyes half closing, but not with drowsiness. The heat was very great, especially for a man near seventy, and especially for a man who had lived with outrageous fear for four years and now found his fears exploding in his face.

"Doing?" Tavares repeated wearily. "I shall tell you what they are doing. They are searching." His voice was hardly louder than a whisper, in the perfect quiet of the hot desert air. "They see that your jeep is not there, but they search your house. They observe that you are not in it. It takes very little time to do this; there is not much to search."

"Right," said Hardee roughly, dropping to the sand beside him. "Then what will they do next?"

Old man Tavares opened his eyes. He looked out across the sand. "Then I think they will take off again in the plane and look all through the desert for you. They will figure to find you easily from the air. But—" He paused, thinking. "Yes," he said. "It is not a good plane for the purpose and in any case they will want more, for they do not wish to miss you. So more will be summoned."

"More planes?" repeated Joan. "I never saw any other planes."

"You will," said Tavares sadly. "In an hour, perhaps, or two hours, there will be many planes flying overhead. But in much less time than that, this one that is by Hardee's home will search for us."

OUT behind the shed was the blank headboard and the shallow grave where Hardee had buried the stranger. Tavares looked at it longingly.

"If he were alive," he whispered, "then perhaps we could learn something."

"We could dig him up," Wakulla rumbled.

The girl made a faint sound. "In this heat? After nearly a week?"

Hardee shook his head. "No, we won't dig him up. Not because of the heat—it's dry, Joan; he'll be half a mummy by now. But I put him there and I know what I

buried. There's nothing on him but ragged shorts and a pair of shoes. Nothing that would tell us anything." He gestured back toward the ringing hills. "That's where his trail came from. I didn't follow it, and now the wind has wiped it out, but that's where it was."

"No matter," said Tavares with the calm of resignation. "It is too late for any of those things." He nodded toward where the plane had landed.

"You think they mean trouble?" Wakulla demanded.

"Think?" Tavares glanced at him opaquely, then once again out across the hot, dry sand. "I do not think. I know. Look."

A flare of flame, almost invisible against the bright sky, fringed with bits of metal and sand and unidentifiable debris, leaped up over the dunes. Smoke followed.

"They are taking no chances," said Tavares slowly. "They looked for you, and when you were not to be found, they destroyed your home — perhaps you had hidden, you see. But now they will look some more."

In a moment, the sound of the explosion reached them.

The boy began to cry.

V

THE sky was full of aircraft, high-winged light planes that chopped the desert into sector strips and patrolled them, seeking, seeking; helicopters that darted from place to place.

"I never saw so many planes," breathed Joan Bunnell, one arm around the boy. He was thrilled, so excited that he forgot to be afraid; he had never seen so many planes either, had hardly believed that so many planes existed.

All through the afternoon, they lay there in the waning heat, while the searching planes crisscrossed the sky. Wakulla looked angry, then puzzled, then contemptuous. He said: "Stupid! Why don't they follow our tracks? If it was me up there, I'd find the jeeps in ten minutes!"

Tavares shrugged. He was very silent; he didn't want to talk, it seemed. Hardee and the others kept probing at him with questions, but he only shook his head. The heat was wearing. Even under the strain of the time, it lulled them, drugged them . . .

Hardee woke up, and it was a cold, bright night.

The sun had set.

Overhead, the stars washed across the sky. While he watched, one larger star — no, not a star; the second moon — soared in a great wide arc down toward the eastern horizon, steel-blue and familiar. Hardee squinted up wonderingly. If this was not Mars, then what was this lesser moon in the sky?

He woke the others.

The planes were gone and the desert was silent. They crept out and got into their jeeps and headed back toward the demolished prefab.

They stopped a couple of hundred yards away.

Still in the night, a faint red glow and ruddy smoke showed where part of the destroyed house still smoldered. Hardee caught his breath and touched Tavares on the shoulder.

"Look," he whispered.

In the starlight, metal glinted. It was a wing of the old Ford trimotor.

The plane was still there!

For an instant, panic filled them all. But there was no sound, only their own breathing and the metallic pinging from the smoldering ruin of the house.

The boy, silent and sleepy, stirred restlessly next to his father. "My tractor," he mumbled, and was silent. There was no toy tractor any more. There was no house. Only the smoldering metal and plastic were left.

Tavares said quaveringly: "I think perhaps they could not get the plane off the ground. There were helicopters, and it may be that they took the crew off with them. It is bad sand here for a plane."

"And maybe it's a trap!" rumbled Wakulla.

Tavares said softly: "Yes. Maybe it is."

Hardee said: "We don't have any choice. Let's take a look."

CAUTIOUSLY they moved up with the jeeps. Hardee backed his near the open door in the washboard fuselage; Wakulla rolled to a stop a dozen yards away and turned his headlights on the plane. They climbed onto the hood of Hardee's jeep and peered inside.

Tinkling crystal bells whispered in their ears.

Under the lights from Wakulla's jeep, a metallic scurry of wavy jointed legs and of sliding, clicking bodies: the hold of the plane was full of skitterbugs.

Hardee took a deep breath.

"Come on," he said. "Let's look around."

They clambered into the plane.

The skitterbugs clicked and pinged protestingly underfoot. Chuck dove for a pair of them and came up with them proudly. "Daddy, can I keep them? I mean now that Alfie and Alice are gone?"

"Sure," said Hardee gently, and set the boy out of the way. To Wakulla, he said: "You come with me. If there's anybody left in the plane, they'll probably be up front, by the controls—"

Screech of metal, and a tinny crash.

The door slammed shut. Lights

blazed on inside the plane. The elliptical door at the forward end of the ship opened and Griswold, his haunted eyes staring, peered out.

"There is," he said. "Welcome aboard, all of you."

Hardee tensed to jump him, and felt Wakulla gathering his muscles beside him — but it was too late, too late! There was a choking, sputtering roar from outside — another, and a third; the three engines were spinning, warming up. Griswold stepped back a second before their leap and the door slammed in their faces.

As Hardee and Wakulla piled up against the elliptical door that led to the pilot's cabin, the engines shrilled louder and louder. The vibrations evened, smoothed, were synchronized.

Then—crash, crash! Two thundering blows smote them. The plane was a croquet ball, and a mallet huger than Thor's slammed it forward — bump and bump — across the uneven sands. Through the one small window left unblocked, they could see the trail of exhaust flame from the engines; and then, beside that flame and below it, a huger, brighter torch —a JATO unit, hurling the tired old transport up and out and into the thin air.

The JATO rockets flared twenty yards of heaving flame; and then they were dark, but by then their work was completely done.

The plane sagged for a second. Waddling in the thin cold air, it began lumpishly to climb and gain altitude.

They were trapped.

A WHILE later, the elliptical door opened again briefly—long enough for Griswold, carrying a gun, to come back to join them.

He said heavily: "I was afraid we would catch you."

He stood regarding them. Queerly, he seemed more afraid than they. "Don't try anything," he told them, shouting over the racket of the motors. "It's a waste of time. You see?"

And he held open the elliptical door for them to look. Through it they saw the bucket seats for pilot and co-pilot, and what was in those seats. And then the door was closed again, and Griswold was gone.

Hardee felt a sudden sharp convulsion in his stomach. He heard Wakulla swear and the girl cry out and knew that they had seen what he had seen: In the seats, clinging to a metal grid, a pair of skitterbugs.

And riding on them, like a jockey on a horse: Bright bronze death's heads with beady black eyes.

Wakulla rumbled: "What—what the hell was *that?*"



"Martians?" whispered the girl. "But, Dom, you said we weren't on Mars!"

Tavares shrugged. His face was quiet and resigned now; he had given up. "I didn't say where we were," he pointed out. "Nor did I say what manner of creature might be with us."

Hardee shook his head to clear it.

His arm was tight around the shoulders of the boy. Having him there was a help; it made it necessary for Hardee to think. He couldn't merely give up, for the boy's life was dependent on what he did now.

He tried to reason it out.

"We are not on Mars," he said, testing the truth of the statement. "You're sure of that, Dom?"

"Sure?" Tavares laughed. "Can you lift three hundred pounds?" he asked queerly, his eyes watering. "Do you see two tiny moons in the sky? No, not the big moon. That is too big, too bright; that might be Earth's moon, but not one of those of Mars!"

"There *are* two moons," Joan said reasonably.

"No." Tavares shook his head. "A moon and a satellite. An orbiting spaceship, I believe. It is a hoax. We were never on Mars."

"BUT what's the *purpose* of it?" demanded Hardee.

Tavares shook his head. "Don't you think I've wondered, for five years? But I haven't been able to guess. All that I know is that they told us this was Mars, but it is not. Mars is a red star in the sky. I have seen it myself. This I know. I know nothing else."

"And all these years you haven't said anything?" asked Hardee roughly.

"I have not. Why? For the reason that I did not dare, Hardee. Yes, I, Tavares, who was once a fighter in France, in the war that happened before you were born — I did not dare. You recall when you woke up, eh?"

"Woke up? You mean the first time, before I came to the colony?" Hardee nodded. "I remember. I was in a room—"

"Yes," said Tavares. "That room. And you were asked many questions, were you not, like the rest of us?"

"I was. Crazy ones."

"No, Hardee! Not crazy. They were for a purpose. Consider. You were asked what you knew about Mars—they said it was because you were being sent there, eh? And you told them, very truly, that you knew nothing. I do not know what would have happened if, by chance, you had been an astronomer, or perhaps a journalist, and had answered that question differently. But I know that you would never have come to the colony."

Hardee, frowning, ground out: "Go on!"

"And then they began to describe the planet Mars to you—to get you ready for your experience, they said. Right? They described it just as it turned out—in fine, *not like Mars itself!* And they watched you. And you showed no signs of doubting them.

"I know that this is so. For, at the time when I awoke, there was another with me, also awakened; and this one doubted, and let them see that he doubted. 'Mars has a light gravity,' he told them. 'And almost no air! And —' Oh, he went on and on.

"It was a mistake.

"They took him away."

Hardee said reasonably: "But that doesn't prove anything, Tavares. There could have been some perfectly simple reason."

"I heard him scream!" Tavares plunged his face into his hands, rocking slowly. "And so all these years, I have said nothing, I have questioned nothing, for I did not dare. But now it is too late to be afraid. For that stranger you found, Hardee, he proved that all of this is a lie.

"And now the liars must come out into the open — at least for us here, who know of the lie. And the liars—we have seen them."

He flung his arm out, pointing toward the elliptical door to the pilot's chamber — where they had seen the skitterbugs poised calmly on their metallic webs, with the bronze death's-head riders perched on their shining carapaces.

The flying antique thumped and pounded in strong air currents. But it was not airsickness that made them feel sick and faint.

THE elliptical door opened. Griswold came back, carrying the gun. Behind him they caught another glimpse of the skitterbugs and their bronze inhuman riders.

Griswold closed the door and called: "Sit down, all of you! We're coming down!"

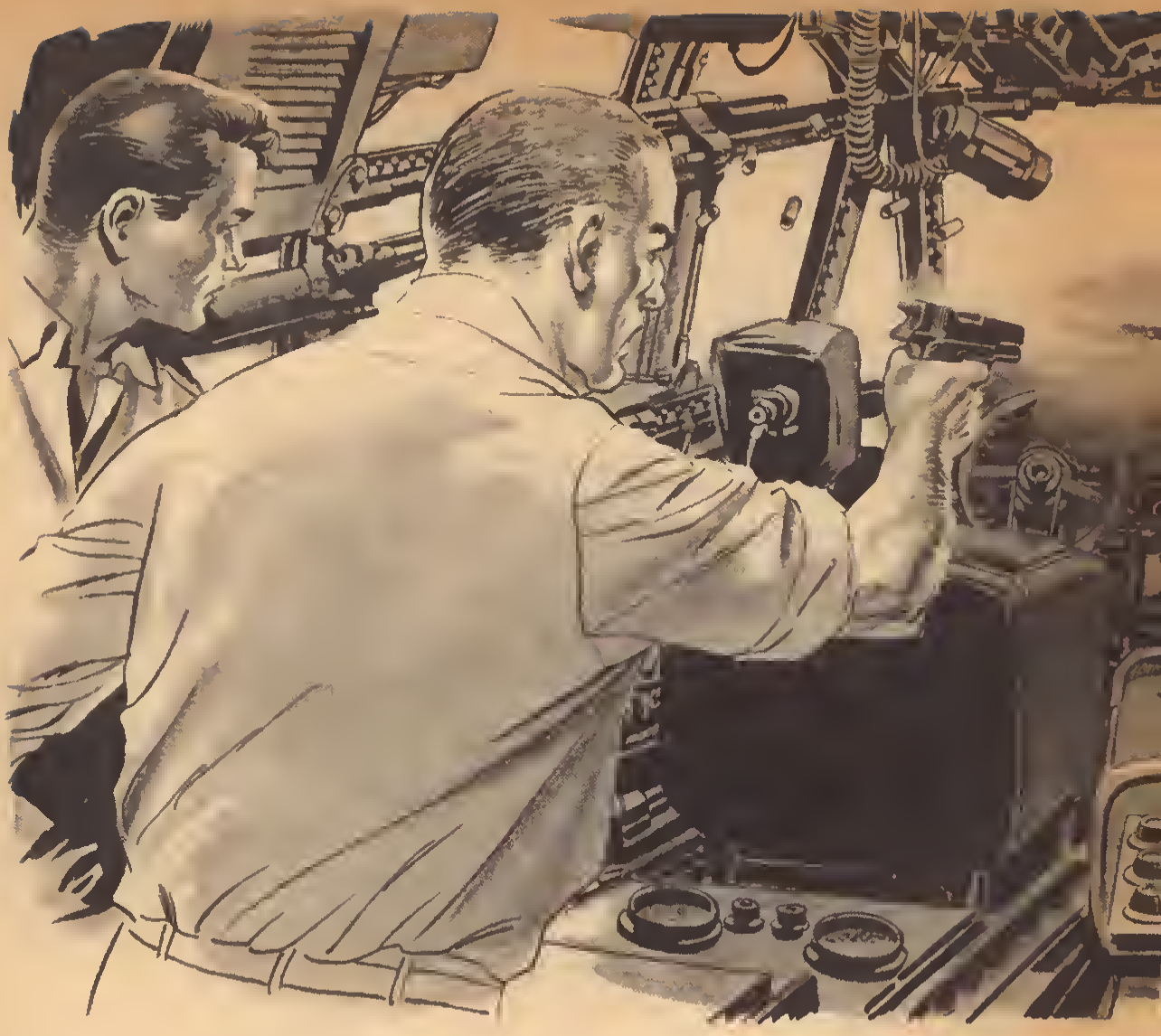
"Thanks," said Hardee shortly. "I didn't expect this much consideration."

Griswold measured him with the eyes of a man who knew demons. "You blame me," he said. "Of course you do. What can I do about it?"

He motioned Hardee to the tiny window. "Look down there," he ordered. "See that city? It's full of skitterbugs — hundreds of thousands of them! There's hardly a human being alive in it, though it used to be full of them. The skitterbugs have taken over!"

"Taken over?" Hardee echoed, puzzled. "Then — are we —"

"On Earth, yes." Griswold nodded. "But it doesn't belong to the human race any more. You'll find out." He stared at Hardee with pity and fright. "You could have



lived out your life in the colony," he said somberly, "but you had to find that man. Now God knows what the bugs will do to you. But you'll never see the colony again."

"And neither will you!" bawled an enormous voice behind them.

Griswold spun, trying to bring the gun up, but there was no time, and the shifting footing of crawling bugs beneath them tripped him, caught him off balance. Wakulla, grinning like a maddened gorilla, caught the old man with one square hand. The gun fell one way and Griswold fell the other — out cold.

"Come on!" shouted Wakulla, and dived for the gun. He stumbled knee-deep through the crawling little monsters up toward the elliptical door. Hardee followed, almost without thought. They burst through the door—



Twin bronze creatures turned to regard them out of black and hollow eyes. They were small by human standards, built like huge metallic frogs, golden bronze, with tiny limbs and huge faces. They rode the skitterbugs, but they were not joined to them. One of them made a harsh metallic whistling sound and flopped off its mount, toward something that glittered on the floor — a weapon, perhaps.

WHATEVER it was, the bronze creature never reached it. Wakulla, bellowing madly, lunged into the cabin and brought his heavy foot down on the creature. There was a screech and a thin crackling sound; and that was the end of that one.

The other was getting into motion by now. But it never had a chance. Wakulla steadied himself, took aim and fired — again and

again, pumping bullets at the thing, and though his aim was none too good, enough of them connected to splatter the creature against the control panels.

The ancient plane wobbled and began to fall off on one wing.

"Hold on!" bawled Wakulla, and grabbed for the control wheel.

Hardee, panting, fought his way into the seat beside him. "Can you fly one of these things?"

"I can try!" said Wakulla, grinning. Straight ahead of them, through the glass, Hardee could see a patchwork of trees and houses, roads and open land. "I'll land it there!" Wakulla yelled, horsing the stick back.

They hit the ground hard at more than a hundred miles an hour, bounced, came down on one wheel, blew a tire and slid crabwise across an open meadow. If there were brakes, Wakulla didn't know where to find them; if there was a way to stop the plane before it reached the fence at the edge of the field, he didn't know it. They hit the brush fence, still going fast.

Hardee felt the windshield fly up and smack him in the face. The last thought he had was: *Fire.*

VI

IT was full morning; he had been unconscious for at least an hour.

Over against the trees, an enormous smoke plume showed where the tri-motor was giving up the ghost. Joan Bunnell was leaning over him, her cheek bloody, her clothing torn. "Hardee, you're all right?" she breathed.

He pushed himself up. "I guess so." He looked around. "Wakulla—?"

"His neck was broken." The girl rocked back on her heels. Tavares was sitting on the damp grass nearby, cradling the boy in his lap. Beside him, Griswold lay face-down, unmoving. "The rest of us are all right," Joan said. "Griswold has a bad arm. That's all."

Hardee shook his head and began to rub his ears. It felt like golf-tees driven into his eardrums; the old crate had come down fast and the change in pressure was bad. He could hardly hear what Joan was saying.

"Poor Wakulla," she murmured. "Maybe he saved our lives."

"And maybe he killed us all," said Griswold, painfully turning on one side to face them. His face was perspiring, and he clutched one arm with the other hand. "They'll never let this go by," he warned.

Hardee got up dizzily and strode over to the old man. "Talk!" he said. "What are the bugs? Where are they from?"

Griswold said wretchedly: "I don't know. The bugs don't mat-

ter — it's the skulls that are important. They're smart. And they aren't from Earth."

He sat up, holding his twisted arm. In the hot sunlight, the field they were in was alive with skitterbugs, flashing and leaping, loosed from the wrecked plane.

Griswold said: "The bugs are only brainless machines. They are seeded and they grow, and when they are large enough, the skulls harvest them. Sometimes they use human beings for the job of harvesting—like you."

HARDEE walked over to the burning plane. The heat kept him yards away. Wakulla was in there, probably hardly more than a cinder by now, but he couldn't be seen. Just as well, thought Hardee. A few skitterbugs, damaged in the crash, limped brokenly around on the grass, excited by the floods of radiant energy from the sun and the fire, but unable to move very fast.

And something else metallic lay in the grass.

Hardee bent for it; his head thundered, but he kept his balance and picked it up. It was the gun Wakulla had taken from Griswold. Hardee opened it, looked inside and swore.

Only one bullet left.

But it was better than nothing.

Back where the others were waiting, Tavares was relentlessly questioning Griswold. "These creatures, you say they came from space, in that great ship that now orbits around the Earth?'

"Five years ago," said Griswold, nodding. "They have a ray —I don't know how it works. But they sprayed the world with it, and every living thing went to sleep. Some are sleeping yet—those that haven't starved to death, though metabolism is slowed considerably."

Hardee looked at Joan Bunnell and put his arm protectingly around the boy. "Would that be October, 1959?" he asked.

"It would," said Griswold heavily. "You begin to understand, I see. That's what happened to all of you at the colony. You weren't criminals—except that, in the eyes of the skulls, it's a crime to be human at all."

Not criminals! No forgotten crime to expiate! Hardee could scarcely believe it. But Griswold was still talking:

"They want our planet," he explained. "One shipload came, to get things ready, an advance party. I don't know when the rest of them will be here — but they're on their way. Perhaps a year or two. And they need to have the human race under control by then."

He rubbed his arm and stared up at the sky. "So some of us are helping them," he said flatly. "Call us traitors—we are! But what else

is there to do? The skulls gave us a very simple alternative. Either we help them study us so that they can learn to rule the human race... or they go back out into their ship and spray the Earth with another ray. Not a sleep ray, but one that will wipe out all life entirely."

GRISWOLD spread his hands. "It's a choice that isn't any choice," he said. "What else was there? So when they woke me — I was one of the first few hundred; now there must be tens of thousands — they learned, after we established communication, that I was a psychologist. It was exactly what they needed. They set me the problem of contriving an experimental colony — a test farm, if you like, where the human animal could be kept in conditions as close to natural as possible.

"It was their ship, orbiting out there, that made me think of Mars — it does look like a second moon. Luna was no real problem. A simple post-hypnotic command and none of you could focus on it enough to recognize the features. But I couldn't erase knowledge of Mars, if it existed in any of you. There is no invention, of course, that causes partial—and selective —amnesia in criminals. That was a lie to make you accept this plateau as a penal colony on Mars."

"But what in hell *for?*" Hardee asked angrily.

"So nobody would try to escape. Thinking you were on Mars, you wouldn't hope to get to Earth. Knowing you were on Earth, you'd do anything to reach civilization —not realizing there wasn't any left. Skitterbugs wouldn't get harvested. Skulls would be killed. The colony would be trouble instead of useful — and it would then be wiped out.

"I wanted to keep as many people alive for as long as I could," said Griswold. "There was no other chance for humanity."

"What do we do now?" Hardee grimly demanded.

Griswold hesitated. "There are a few free humans," he said reluctantly. "Not many. They live in the woods, in hiding, some of them in the cities themselves. Mostly they are ignored by the skulls — because there are so few. If there weren't, the skulls would take the easy way out. The Earth is their new home, you see, and they regard it as you would your house. You might tolerate a few vermin —but if there are too many, you'll call in the exterminators. But there are these few, and if we can somehow make our way to them, we might have a chance to—"

"Hush!" breathed Joan Bunnell.

She caught the boy to her, pointing. Out of the woods at the side of the field raced a posse of skitterbugs, each with its bronze death's-head rider.

Hardee tried to fight, though there were hundreds of the creatures. If Wakulla had not been so profligate with his bullets—

But he had been; and the single bullet in the gun was more frustrating than none at all.

"Too late," groaned Griswold, his tortured face sagging with fear. "Give up, Hardee! Otherwise they'll kill us right here!"

THEY were marched down a road and into the environs of a city, the skitterbugs with their bright bronze riders a disorderly rabble around them.

None of them recognized the city; it might have been anywhere. It was a silent city, a city of death. Even from the streets, they could see men and women who had been struck down in the middle of life. A mother with three children around her, sprawled in a Laocöon down porch steps; a postman with his two-wheeled cart beside him, his letters long since blown away.

And there were living, waking humans too. Chuck shivered and caught his father's arm as they rounded a corner and saw a work gang — ten or twelve men, in rags of clothing, clearing rubble from a tumbled house that lay across a side street; they looked up as Hardee and the rest passed, but there was no emotion in their eyes, only weariness.

"Those others," whispered Joan. "Are they dead?"

"No," said Tavares heavily, "not if what Griswold tells us is true. But they might as well be. Unless—"

"Don't even think it!" begged Griswold. "Some of the skulls can understand English!"

"Let them understand!" cried Hardee. He stopped and faced them. "We'll fight you!" he shouted. "You can't have our planet—not now or ever! The human race isn't going to be taken over by a bunch of bugs from another planet!"

Incuriously, the blank-eyed bronze skulls stared at him; almost as incuriously, the ragged men looked on.

The skulls prodded Hardee on, and the ragged men went back to their work.

The prisoners were taken to a big building that bore on it a sign, *Hotel Winchester*. Once it had been a commercial hotel; now it seemed to be headquarters for the skitterbugs and the skulls that rode them.

Without a word, they were put in a room on a gallery that overlooked the lobby. The floor of the lobby was a seething mass of skitterbugs with their riders—and some skulls which had found a different sort of mount, for they perched on the shoulders of ragged men.

The door was closed, and they were left alone.

IT was a partly glass door; Hardee peered out. "They must have come from a light-gravity planet," he guessed. "They move badly without the skitterbugs. They can't be very strong."

"They don't need to be," said Griswold somberly. "Not with their weapons."

"What about at night?" asked Hardee. "Surely the skitterbugs can't operate very well without light. Can't we—"

But Griswold was shaking his head. "They keep all the areas of the city where they move about well lighted. No, Hardee. The skulls are way ahead of you." He sat down and sighed. "I think they'll kill us," he said without emotion. "It's either that or the labor gangs."

Old man Tavares said something incandescent in Spanish. "You may die, Griswold, but I'll fight. Look, why can we not get away? Soon it will be dark, as Hardee says, and it is then only a matter of getting away from the lighted areas. Why not?"

"Wait," Hardee interrupted, staring out the glass of the door. "Someone's coming."

They crowded around.

Down the long gallery that surrounded the lobby, a tall man with angry eyes approached.

Hope surged — a human, and free!

But then they saw that on his shoulder rode one of the bronze skulls, motionless, the hollow eyes emptily staring.

"He is probably our executioner," said Griswold, as though announcing the time of day.

"Not without a fight," said Hardee tensely. "Tavares, you stand over here. I'll wait on the other side. Joan, you take Chuck to the far side of the room. See if you can make the skull look at you! And Griswold—"

"It won't work," said Griswold stubbornly, but he went with Joan and the boy.

The door opened.

As soon as the man and his rider were inside, Hardee lunged against the door, slammed it shut. "Now!" he shouted, and leaped toward the pair.

The angry eyes of the man opened wide in astonishment. Hastily he stepped back. "Wait!" he cried, stumbling—

And the bronze skull toppled from his shoulder.

It rolled across the room and lay motionless on the floor.

HARDEE jumped for it as though it were a hand grenade, fallen back into his own rifle pit; but the new man with the angry eyes yelled: "Don't waste your time! That one's dead —I killed it myself!"

Hardee brought up short, gaping.

The man grinned tightly. "It keeps the others from bothering me," he explained. "Don't mess it up — we'll need it to get out of here. Come on!"

"Where?" asked Hardee, trying to take it in. It was hope, it was rescue — when they had expected it least.

"Down the end of the gallery," said the man, "there's a linen closet. In it is a laundry chute. It goes down to the cellar. The skulls don't go there much—the lights are bad; we keep them that way. And there are sewers and passages. If we reach the chute, we're safe."

He opened the door, peered out. "You go ahead, all of you. I'll follow, as though I'm taking you somewhere." He closed the door and bent down to recover his skull. "Mustn't forget Oscar," he said. "He's our passport."

He opened a leather strap that passed around his neck and shoulder, bound it around the dead skull, buckled it again. Experimentally he bowed slightly from the waist. The skull wobbled but stayed on.

"Don't jar me," he said, and crossed his fingers. He opened the door a crack, looked down the corridor and nodded.

"Let's go!" he said, and flung it wide.

The procession moved down the gallery. Dust was thick on the leather settees that lined it; the skulls had no need for them, and no human without a skull possessing it had passed that way in five years. There were skitterbugs with skulls upon them at the end of the gallery, but they didn't seem to notice anything. Down in the lobby, a few of the men with skull riders glanced up, but no one challenged.

It was twenty yards to the door of the linen closet.

Fifteen yards were easy.

Then, out of a ballroom that was now a pen for the human slaves of the skulls, two skitterbugs with skulls upon them came out. They paused and then one of them opened its queerly articulated transverse mouth and made a sound, a chanting metallic whine —speaking to the skull on the shoulder of their rescuer.

Hardee caught Joan's arm, took a tighter grip on the hand of the boy by his side, lengthening his stride. So near! And then —

QUICK as lightning, the skitterbug with the skull on it leaped forward and clutched at the legs of the man who was shepherding them.

He kicked it away. "Run!" he yelled.

The skull on his shoulder fell free and bumped lifelessly away. Three more skulls, riding skitterbugs, popped out of the ballroom. Down on the lobby floor there was

a stirring and a whining commotion.

"Run!" he yelled again, and shoved them powerfully forward to the linen closet.

They made the door, just in time. It was the size of a small room, and they all crammed inside.

Hardee slammed the door and held it. "Jump! I'll stay here and keep them out."

The boy cried out once, then was silent. He glanced at his father as Tavares and the other man lifted him into the chute; but he didn't say a word when they let go and he slid out of sight.

"Go ahead, Joan!" barked Hardee.

Restless scratchings outside told him the skitterbugs were there. Then he could feel the door pressing against him. He cursed the clever, economical designers of the building, who had known better than to put a lock on the inside of a linen closet. If there had been one, they could all escape. But since there was not—

Griswold glanced at the chute, looked at Hardee, and nervously tongued his dry lips.

Tavares was in the chute now; he waved, and dropped out of sight.

Griswold turned his back on the chute.

He walked over to Hardee. "I've got a broken arm," he said, "and, you know, I'm not sure the free humans would welcome me. You go, Hardee."

"But—"

"Go ahead!" Griswold thrust him away. There was more strength than Hardee had expected in the worn, injured body. "I doubt I could make it anyway, with this arm—but I can hold *them* for a minute!"

Already the other man was gone; it was only Griswold and Hardee there, and the scratching and shoving were growing more insistent.

"All right," said Hardee at last. "Griswold—"

But he didn't know what it was, exactly, that he wanted to say; and besides, there was no time.

Griswold, sweat pouring into his eyes, chuckled faintly for the first time since Hardee had known him.

"Hurry!" he said, and looked embarrassed as he held up two fingers in a shaky V. But he looked embarrassed only for an instant. The fingers firmed into a spiky, humanly stubborn, defiant sign of victory. "Save the children," Griswold said. "I couldn't get the skulls to let many into the colony — a waste, they told me, because kids can't work. Save the children!"

Hardee turned away — toward the laundry chute, and toward a new life.

—PAUL FLEHR

THE LAST LETTER

By FRITZ LIEBER

Who or what was the scoundrel that kept these couriers from the swift completion of their handsomely appointed rondos?

Illustrated by DILLON

ON Tenthmonth 1, 2457 A.D., at exactly 9 A.M. Planetary Federation Time—but with a permissible error of a millionth of a second either way— in the fifth sublevel of New-New York Robot Postal Station 68, Black Sorter gulped down ten thousand pieces of first-class mail.

This breakfast tidbit did not agree with the mail-sorting machine. It was as if a robust dog had been fed a large chunk of good red meat with a strychnine pill in it. Black Sorter's innards went *whirr-klunk,* a blue electric glow enveloped him, and he began to shake as if he might break loose from the concrete.

He desperately spat back over his shoulder a single envelope, gave a great *huff* and blew out

toward the sorting tubes a medium-size snowstorm consisting of the other nine thousand, nine hundred and ninety-nine pieces of first-class mail chewed to confetti. Then, still convulsed, he snapped up a fresh ten thousand and proceeded to chomp and grind on them. Black Sorter was rugged.

The rejected envelope was tongued up by Red Subsorter, who growled deep in his throat, said a very bad word, and passed it to Yellow Rerouter, who passed it to Green Rerouter, who passed it to Brown Study, who passed it to Pink Wastebasket.

Unlike Black Sorter, Pink Wastebasket was very delicate, though highly intuitive—the machine equivalent of a White Russian countess. She was designed to scan in 3,137 codes, route special-delivery spacemail to interplanetary liners by messenger rocket, and distinguish 9s from upside-down 6s.

Pink Wastebasket haughtily inhaled the offending envelope and almost instantly turned a bright crimson and began to tremble. After a few minutes, small atomic flames started to flicker from her mid-section.

White Nursemaid Seven and Greasy Joe both received Pink Wastebasket's distress signal and got there as fast as their wheels would roll them, but the high-born machine's malady was beyond their simple skills of oilcan and electroshock.

THEY summoned other machine-tending-and-repairing machines, ones far more expert than themselves, but all were baffled. It was clear that Pink Wastebasket, who continued to tremble and flicker uncontrollably, was suffering from the equivalent of a major psychosis with severe psychosomatic symptoms. She spat a stream of filthy ions at Gray Psychiatrist, not recognizing her old friend.

Meanwhile, the paper blizzard from Black Sorter was piling up in great drifts between the dark pillars of the sublevel, and flurries had reached Pink Wastebasket's aristocratic area. An expedition of sturdy machines, headed by two hastily summoned snowplows, was dispatched to immobilize Black Sorter at all costs.

Pink Wastebasket, quivering like a demented hula dancer, was clearly approaching a crisis. Finally Gray Psychiatrist—after consulting with Green Surgeon, and even then with an irritated reluctance, as if he were calling in a witch-doctor—summoned a human being.

The human being walked respectfully around Pink Wastebasket several times and then gave her a nervous little poke with a rubber-handled probe.

Pink Wastebasket gently regur-

gitated her last snack, turned dead white, gave a last flicker and shake, and expired. Black Coroner recorded the immediate cause of death as tinkering by a human being.

The human being, a bald and scrawny one named Potshelter, picked up the envelope responsible for all the trouble, stared at it incredulously, opened it with trembling fingers, scanned the contents briefly, gave a great shriek and ran off at top speed, forgetting to hop on his perambulator, which followed him making anxious clucking noises.

The nearest human representative of the Solar Bureau of Investigation, a rather wooden-looking man named Krumbine, also bald, recognized Potshelter as soon as the latter burst gasping into his office, squeezing through the door while it was still dilating. The human beings whose work took them among the Top Brass, as the upper-echelon machines were sometimes referred to, formed a kind of human elite, just one big nervous family.

"Sit down, Potshelter," the SBI Man said. "Hold still a second so the chair can grab you. Hitch onto the hookah and choose a tranquilizer from the tray at your elbow. Whatever deviation you've uncovered can't be that much of a danger to the planets. I imagine that when you leave this office, the Solar Battle Fleet will still be orbiting peacefully around Luna."

"I seriously doubt that."

POTSHELTER gulped a large lavender pill and took a deep breath. "Krumbine, a letter turned up in the first-class mail this morning."

"Great Scott!"

"It is a letter from one person to another person."

"Good Lord!"

"The flow of advertising has been seriously interfered with. At a modest estimate, three hundred million pieces of expensive first-class advertising have already been chewed to rags and I'm not sure the Steel Helms—God bless 'em!—have the trouble in hand yet."

"Judas Priest!"

"Naturally the poor machines weren't able to cope with the letter. It was utterly outside their experience, beyond the furthest reach of their programming. It threw them into a terrible spasm. Pink Wastebasket is dead and at this very instant, if we're lucky, three police machines of the toughest blued steel are holding down Black Sorter and putting a muzzle on him."

"Great Scott! It's incredible, Potshelter. And Pink Wastebasket dead? Take another tranquilizer, Potshelter, and hand over the tray."

Krumbine received it with

trembling fingers, started to pick up a big pink pill but drew back his hand from it in sudden revulsion at its color and swallowed two blue oval ones instead. The man was obviously fighting to control himself.

He said unsteadily, "I almost never take doubles, but this news you bring—Good Lord! I seem to recall a case where someone tried to send a sound-tape through the mails, but that was before my time. Incidentally, is there any possibility that this is a letter sent by one *group* of persons to another group? A hive or a therapy group or a social club? That would be bad enough, of course, but—"

"No, just one single person sending to another." Potshelter's expression set in grimly solicitous lines. "I can see you don't quite understand, Krumbine. This is not a sound-tape, but a letter written in letters. You know, letters, characters—like books."

"Don't mention books in this office!" Krumbine drew himself up angrily and then slumped back. "Excuse me, Potshelter, but I find this very difficult to face squarely. Do I understand you to say that one person has tried to use the mails to send a printed sheet of some sort to another?"

"Worse than that. A written letter."

"Written? I don't recognize the word."

"It's a way of making characters, of forming visual equivalents of sound, without using electricity. The writer, as he's called, employs a black liquid and a pointed stick called a pen. I know about this because one hobby of mine is ancient means of communication."

KRUMBINE frowned and shook his head. "Communication is a dangerous business, Potshelter, especially at the personal level. With you and me, it's all right, because we know what we're doing."

He picked up a third blue tranquilizer. "But with most of the hive-folk, person-to-person communication is only a morbid form of advertising, a dangerous travesty of normal newscasting—catharsis without the analyst, recitation without the teacher—a perversion of promotion employed in betraying and subverting."

The frown deepened as he put the blue pill in his mouth and chewed it. "But about this pen—do you mean the fellow glues the pointed stick to his tongue and then speaks, and the black liquid traces the vibrations on the paper? A primitive non-electrical oscilloscope? Sloppy but conceivable, and producing a record of sorts of the spoken word."

"No, no, Krumbine." Potshelter nervously popped a square orange tablet into his mouth. "It's a handwritten letter."

Krumbine watched him. "I never mix tranquilizers," he boasted absently. "Hand-written, eh? You mean that the message was imprinted on a hand? And the skin or the entire hand afterward detached and sent through the mails in the fashion of a Martian reproach? A grisly find indeed, Potshelter."

"You still don't quite grasp it, Krumbine. The fingers of the hand move the stick that applies the ink, producing a crude imitation of the printed word."

"Diabolical!" Krumbine smashed his fist down on the desk so that the four phones and two-score microphones rattled. "I tell you, Potshelter, the SBI is ready to cope with the subtlest modern deceptions, but when fiends search out and revive tricks from the pre-Atomic Cave Era, it's almost too much. But, Great Scott, I dally while the planets are in danger. What's the sender's code on this hellish letter?"

"No code," Potshelter said darkly, proferring the envelope. "The return address is—hand-written."

Krumbine blanched as his eyes slowly traced the uneven lines in the upper left-hand corner:

from Richard Rowe
215 West 10th St. (horizontal)
2837 Rocket Court (vertical)
Hive 37, NewNew York 319, N. Y.
Columbia, Terra

"Ugh!" Krumbine said, shivering. "Those crawling characters, those letters, as you call them, those *things* barely enough like print to be readable—they seem to be on the verge of awakening all sorts of horrid racial memories. I find myself thinking of fur-clad witch-doctors dipping long pointed sticks in bubbling black cauldrons. No wonder Pink Wastebasket couldn't take it, brave girl."

FIRMING himself behind his desk, he pushed a number of buttons and spoke long numbers and meaningful alphabetical syllables into several microphones. Banks of colored lights around the desk began to blink like a theatre marquee sending Morse Code, while phosphorescent arrows crawled purposefully across maps and space-charts and through three-dimensional street diagrams.

"There!" he said at last. "The sender of the letter is being apprehended and will be brought directly here. We'll see what sort of man this Richard Rowe is — if we can assume he's human. Seven precautionary cordons are being drawn around his population station: three composed of machines, two of SBI agents, and two consisting of human and mechanical medical-combat teams. Same goes for the intended recipient of the letter. Meanwhile, a destroyer squadron of the Solar Fleet has

been detached to orbit over New-New York."

"In case it becomes necessary to Z-Bomb?" Potshelter asked grimly.

Krumbine nodded. "With all those villains lurking just outside the Solar System in their invisible black ships, with planeticide in their hearts, we can't be too careful. One word transmitted from one spy to another and anything may happen. And we must bomb before they do, so as to contain our losses. Better one city destroyed than a traitor on the loose who may destroy many cities. One hundred years ago, three person-to-person postcards went through the mails — just three postcards, Potshelter! — and *pft* went Schenectady, Hoboken, Cicero, and Walla Walla. Here, as long as you're mixing them, try one of these oval blues — I find them best for steady swallowing."

Bells jangled. Krumbine grabbed up two phones, holding one to each ear. Potshelter automatically picked up a third. The ringing continued. Krumbine started to wedge one of his phones under his chin, nodded sharply at Potshelter and then toward a cluster of microphones at the end of the table. Potshelter picked up a fourth phone from behind them. The ringing stopped.

The two men listened, looking doped, Krumbine with an eye fixed on the sweep second hand of the large wall clock. When it had made one revolution, he cradled his phones. Potshelter followed suit.

"I do like the simplicity of the new on-the-hour Puffyloaf phono-commercial," the latter remarked thoughtfully. "The Bread That's Lighter Than Air. Nice."

Krumbine nodded. "I hear they've had to add mass to the leadfoil wrapping to keep the loaves from floating off the shelves. Fact."

HE cleared his throat. "Too bad we can't listen to more phono-commercials, but even when there isn't a crisis on the agenda, I find I have to budget my listening time. One minute per hour strikes a reasonable balance between duty and self-indulgence."

The nearest wall began to sing:

Mister J. Augustus Krumbine,
We all think you're fine, fine,
fine, fine.
Now out of the skyey blue
Come some telegrams for you.

The wall opend to a small heart shape toward the center and a sheaf of pale yellow envelopes arced out and plopped on the middle of the desk. Krumbine started to leaf through them, scanning the little transparent windows.

"Hm, Electronic Soap . . . Better Homes and Landing Platforms . . .



Psycho-Blinkers . . . Your Girl Next Door . . . Poppy-Woppies . . . Poopsy-Woopsies . . ."

He started to open an envelope, then, after a quick look around and an apologetic smile at Potshelter, dumped them all on the disposal hopper, which gargled briefly.

"After all, there *is* a crisis this morning," he said in a defensive voice.

Potshelter nodded absently. "I can remember back before personalized delivery and rhyming robots," he observed. "But how I'd miss them now — so much more distingué than the hives with their non-personalized radio, TV and stereo advertising. For that matter, I believe there are some backward areas on Terra where the great advertising potential of telephones and telegrams hasn't been fully realized and they are still used in part for personal communication. Now me, I've never in my life sent or received a message except on my walky-talky." He patted his breast pocket.

Krumbine nodded, but he was a trifle shocked and inclined to revise his estimate of Potshelter's social status. Krumbine conducted his own social correspondence solely by telepathy. He shared with three other SBI officials a private telepath — a charming albino girl named Agnes.

"Yes, and it's a very handsome walky-talky," he assured Potshelter a little falsely. "Suits you. I like the upswept antenna." He drummed on the desk and swallowed another blue tranquilizer. "Dammit, what's happened to those machines? They ought to have the two spies here by now. Did you notice that the second — the intended recipient of the letter, I mean — seems to be female? Another good Terran name, too, Jane Dough. Hive in Upper Manhattan." He began to tap the envelope sharply against the desk. "Dammit, where *are* they?"

"Excuse me," Potshelter said hesitantly, "but I'm wondering why you haven't read the message inside the envelope."

KRUMBINE looked at him blankly. "Great Scott, I assumed that at least *it* was in some secret code, of course. Normally I'd have asked you to have Pink Wastebasket try her skill on it, but . . ." His eyes widened and his voice sank. "You don't mean to tell me that it's—"

Potshelter nodded grimly. "Hand-written, too. Yes."

Krumbine winced. "I keep trying to forget that aspect of the case." He dug out the message with shaking fingers, fumbled it open and read:

Dear Jane,

It must surprise you that I know

your name, for our hives are widely separated. Do you recall day before yesterday when your guided tour of Grand Central Spaceport got stalled because the guide blew a fuse? I was the young man with hair in the tour behind yours. You were a little frightened and a groupmistress was reassuring you. The machine spoke your name.

Since then I have been unable to forget you. When I go to sleep, I dream of your face looking up sadly at the mistress's kindly photocells. I don't know how to get in touch with you, but my grandfather has told me stories his grandfather told him that his grandfather told him about young men writing what he calls love-letters to young ladies. So I am writing you a love-letter.

I work in a first-class advertising house and I will slip this love-letter into an outgoing ten-thousand-pack and hope.

Do not be frightened of me, Jane. I am no caveman except for my hair. I am not insane. I am emotionally disturbed, but in a way that no machine has ever described to me. I want only your happiness.

Sincerely,
Richard Rowe

Krumbine slumped back in his chair, which braced itself manfully against him, and looked long and thoughtfully at Potshelter. "Well, if that's a code, it's certainly a fiendishly subtle one. You'd think he was talking to his Girl Next Door."

Potshelter nodded wonderingly. "I only read as far as where they were planning to blow up Grand Central Spaceport and all the guides in it."

"Judas Priest, I think I have it!" Krumbine shot up. "It's a pilot advertisement — Boy Next Door or — that kind of thing — printed to look like hand-writtening, which would make all the difference. And the pilot copy got mailed by accident — which would mean there is no real Richard Rowe."

At that instant, the door dilated and two blue detective engines hustled a struggling young man into the office. He was slim, rather handsome, had a bushy head of hair that had somehow survived evolution and radioactive fallout, and across the chest and back of his paper singlet was neatly stamped: "RICHARD ROWE."

When he saw the two men, he stopped struggling and straightened up. "Excuse me, gentlemen," he said, "but these police machines must have made a mistake. I've committed no crime."

Then his gaze fell on the hand-addressed envelope on Krumbine's desk and he turned pale.

KRUMBINE laughed harshly. "No crime! No, not at all. Merely using the mails to communicate. Ha!"

The young man shrank back. "I'm sorry, sir."

"Sorry, he says! Do you realize that your insane prank has resulted in the destruction of perhaps a half-billion pieces of first-class advertising? — in the strangulation of a postal station and the paralysis of Lower Manhattan? — in the mobilization of SBI reserves, the de-mothballing of two divisions of G. I. machines and the redeployment of the Solar Battle Fleet? Good Lord, boy, why did you do it?"

Richard Rowe continued to shrink but he squared his shoulders. "I'm sorry, sir, but I just had to. I just had to get in touch with Jane Dough."

"A girl from another hive? A girl you'd merely gazed at because a guide happened to blow a fuse?" Krumbine stood up, shaking an angry finger. "Great Scott, boy, where was Your Girl Next Door?"

Richard Rowe stared bravely at the finger, which made him look a trifle cross-eyed. "She died, sir, both of them."

"But there should be at least six."

"I know, sir, but of the other four, two have been shipped to the Adirondacks on vacation and two recently got married and haven't been replaced."

Potshelter, a faraway look in his eyes, said softly, "I think I'm beginning to understand—"

But Krumbine thundered on at Richard Rowe with, "Good Lord, I can see you've had your troubles, boy. It isn't often we have these shortages of Girls Next Door, so that temporarily a boy can't marry the Girl Next Door, as he always should. But, Judas Priest, why didn't you take your troubles to your psychiatrist, your groupmaster, your socializer, your Queen Mother?"

"My psychiatrist is being overhauled, sir, and his replacement short-circuits every time he hears the word 'trouble.' My groupmaster and socializer are on vacation duty in the Adirondacks. My Queen Mother is busy replacing Girls Next Door."

"Yes, it all fits," Potshelter proclaimed excitedly. "Don't you see, Krumbine? Except for a set of mischances that would only occur once in a billion billion times, the letter would never have been conceived or sent."

"You may have something there," Krumbine concurred. "But in any case, boy, why did you — er — written this letter to this particular girl? What is there about Jane Dough that made you do it?"

"Well, you see, sir, she's—"

JUST then, the door re-dilated and a blue matron machine conducted a young woman into the office. She was slim and she

had a head of hair that would have graced a museum beauty, while across the back and — well, "chest" is an inadequate word — of her paper chemise, "JANE DOUGH" was silk-screened in the palest pink.

Krumbine did not repeat his last question. He had to admit to himself that it had been answered fully. Potshelter whistled respectfully. The blue detective engines gave hard-boiled grunts. Even the blue matron machine seemed awed by the girl's beauty.

But she had eyes only for Richard Rowe. "My Grand Central man," she breathed in amazement. "The man I've dreamed of ever since. My man with hair." She noticed the way he was looking at her and she breathed harder. "Oh, darling, what have you done?"

"I tried to send you a letter."

"A letter? For me? Oh, darling!"

KRUMBINE cleared his throat. "Potshelter, I'm going to wind this up fast. Miss Dough, could you transfer to this young man's hive?"

"Oh, yes, sir! Mine has an overplus of Girls Next Door."

"Good. Mr. Rowe, there's a skypilot two levels up — look for the usual white collar just below the photocells. Marry this girl and take her home to your hive. If your Queen Mother objects refer her to — er — Potshelter here."

He cut short the young people's thanks. "Just one thing," he said, wagging a finger at Rowe. "Don't written any more letters."

"Why ever would I?" Richard answered. "Already my action is beginning to seem like a mad dream."

"Not to me, dear," Jane corrected him. "Oh, sir, could I have the letter he sent me? Not to do anything with. Not to show anyone. Just to keep."

"Well, I don't know—" Krumbine began.

"Oh, *please*, sir!"

"Well, I don't know why not, I was going to say. Here you are, miss. Just see that this husband of yours never writtens another."

He turned back as the contracting door shut the young couple from view.

"You were right, Potshelter," he said briskly. "It was one of those combinations of mischances that come up only once in a billion billion times. But we're going to have to issue recommendations for new procedures and safeguards that will reduce the possibilities to one in a trillion trillion. It will undoubtedly up the Terran income tax a healthy percentage, but we can't have something like this happening again. Every boy must marry the Girl Next Door! And the first-class mails must not be interfered with! The advertising must go through!"

"I'd almost like to see it happen again," Potshelter murmured dreamily, "if there were another Jane Dough in it."

OUTSIDE, Richard and Jane had halted to allow a small cortege of machines to pass. First came a squad of police machines with Black Sorter in their midst, unmuzzled and docile enough, though still gnashing his teeth softly. Then — stretched out horizontally and borne on the shoulders of Gray Psychiatrist, Black Coroner, White Nursemaid Seven and Greasy Joe — there passed the slim form of Pink Wastebasket, snow-white in death. The machines were keening softly, mournfully.

Round about the black pillars, little mecho-mops were scurrying like mice, cleaning up the last of the first-class-mail bits of confetti.

Richard winced at this evidence of his aberration, but Jane squeezed his hand comfortingly, which produced in him a truly amazing sensation that changed his whole appearance.

"I know how you feel, darling," she told him. "But don't worry about it. Just think, dear, I'll always be able to tell your friends' wives something no other woman in the world can boast of: that my husband once wrote me a letter!"

— FRITZ LEIBER

★ ★ ★ ★ ★

FORECAST

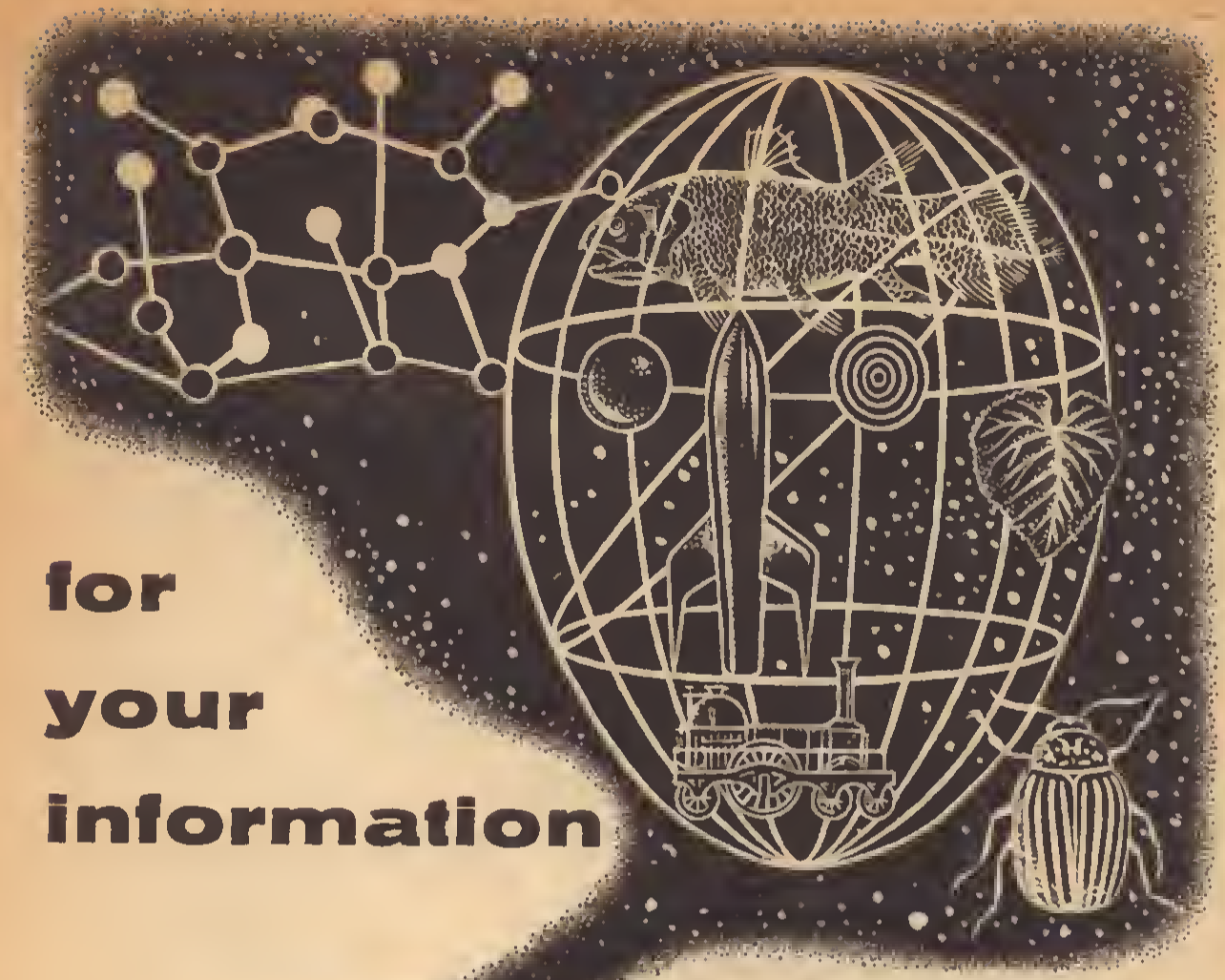
The lineup for next month is indeed something to write home obout. There's o three-stage power plont of novelets:

BULLET WITH HIS NAME by Fritz Leiber, who continues his fiery re-entry into the strotosphere of science fiction with o white-hot personol challenge. Before possing judgment, just osk yourself one question: Would you like onswering for humanity ony better than Ernie Meeker does?

In Stephen Borr's THE BACK OF OUR HEADS, there is an astonishing femole troveler who goes from life to death and back agoin like o commuter on the 5:15 . . . except thot each trip brings her neorer the beginning of the line!

INNOCENT AT LARGE by Poul ond Karen Anderson lands a hayseed Mortion omong big-plonet slickers, where, of course, he is bound to get into trouble. But thot's nothing compored to the trouble he will be in if he does not get into trouble!

Short stories — no less than three ond probobly more. Our usuol features. And Willy Ley's FOR YOUR INFORMATION proves, if proof is still needed, thot this is the most important 18-month period in all history. "IGY Roundup" detoils the findings to dote of the International Geophysical Yeor and rodors the blips of discoveries still to come.



for your information

BY WILLY LEY



NEWS OF ATLANTIS

IT is only to be expected that anybody who has read, say, more than a dozen books about Atlantis will show a pronounced tendency to be rather bored when he sees another title on the same theme. The probability is overwhelming that whatever it is the author of the new book has written, it has been written before.

It does not matter much which

twelve books on Atlantis you have read — at least eight of the twelve must have told you that a complete list of all the books on Atlantis in all languages would comprise more than 2000 titles, plus an estimated 25,000 papers and articles, not counting, of course, popularizations of such books and papers.

A new book on Atlantis, then, rehashing the old ideas, is highly unlikely to cause any excitement. If I am going to discuss one here, it is because it contains a number of *new* ideas. It increases the "newsworthiness," if that is the proper term to use under the circumstances, that the book does not yet exist in English translation.

There is a personal note to the story. Several years ago, at a science fiction convention, somebody asked my opinion about the claim of a North German pastor that he, or rather a diver whom he had hired, had found the ruins of Atlantis on the bottom of the North Sea. I replied at the time that I doubted very much that he had found Atlantis, but that I would not hesitate for a moment to accept the statement that he had found ruins of buildings.

The shoreline of the eastern end of the North Sea, where it is bounded by Denmark and portions of Germany, had shifted considerably in what we would call early historical times if we were talking about the eastern shore of the Mediterranean Sea. The local inhabitants always were full of stories of sunken cities in the area, and by "always" I do not mean my father's or my grandfather's time but the time, more than 300 years ago, when early local chroniclers put these stories on paper.

However, I decided to find out more about it. The first trouble was that the man who told me about the claim did not recall the pastor's name. More by chance than by anything else, I found out that the name is Jürgen Spanuth — which should be pronounced Shpah-NOOT — after which it was easy to establish the title of the book. Then I wrote to Germany for a copy. My correspondent "regretted exceedingly," but the book was out of print.

THREE weeks later, I received a telephone call from a publishing house in New York. They had been sent a new German book on Atlantis and would I care to read it for them? Charming coincidence, I thought, and said yes.

The book came. Its author's name was Otto H. Muck and it turned out to be a hair-raising manipulation of scientific facts, very nearly as bad as Velikovsky. Then, frankly, I forgot about Pastor Spanuth. But last year his book

was reprinted, which fact came to my attention via a book review.

Now, armed with a copy, I can tell about his ideas. But, knowing that not every one of my readers will have read a dozen books on Atlantis, I must sketch in the background first.

The sole source of the whole Atlantis story is a Greek philosopher who died in 347 B.C. and is believed to have been born in 427 B.C. His name was Aristokles, but he was nicknamed Platón (with reference to his broad shoulders) and used Platón as his name in later life. For reasons not known to me, the final "n" dropped out in most languages (though Russian and French retain it), so that he is now known as Plato. The Atlantis story appeared in his works in two places, in the so-called "dialogues"—the term "discussions" would be far more correct—named *Timaios* and *Kritias*.

The first of the two does not contain much more than the statement that there once was a country called Atlantis and that the Atlanteans invaded the eastern Mediterranean. They were, the story says, very successful at first, but were finally beaten by the Athenians.

In the second "dialogue," the one called *Kritias*, the Atlantis theme reappears with a detailed description of the main city, the king's castle and so forth. The *Kritias* is an unfinished work, but it is not a case of a fragment having been lost. We have what Plato wrote, but at a crucial point he stopped writing.

Later writers — writers of the twentieth century, that is — have made a sentimental tale of this. They have made it appear as if the aged philosopher, using his last strength, tried to pass on a great secret to his followers, but that death overtook him in the middle of the work.

BEFORE you shed any tears over this tragedy, let me assure you that the unfinished *Kritias* is not Plato's last work. A careful reading of the piece makes it perfectly clear what happened.

The logic of the development calls for chastising the Atlanteans, even though it is not clear why they should be chastised, since their "crimes" are hardly worse than anybody else's. But while Plato built up toward the chastisement, he must have realized that, according to his own earlier statement, they had not just been chastised but had been wiped out, destroyed utterly. There was simply no way out of this dilemma, so Plato put the unfinished manuscript aside and wrote (and finished) the *Laws*.

As has been mentioned, Plato is the sole source of the Atlantis story. Nobody before him used

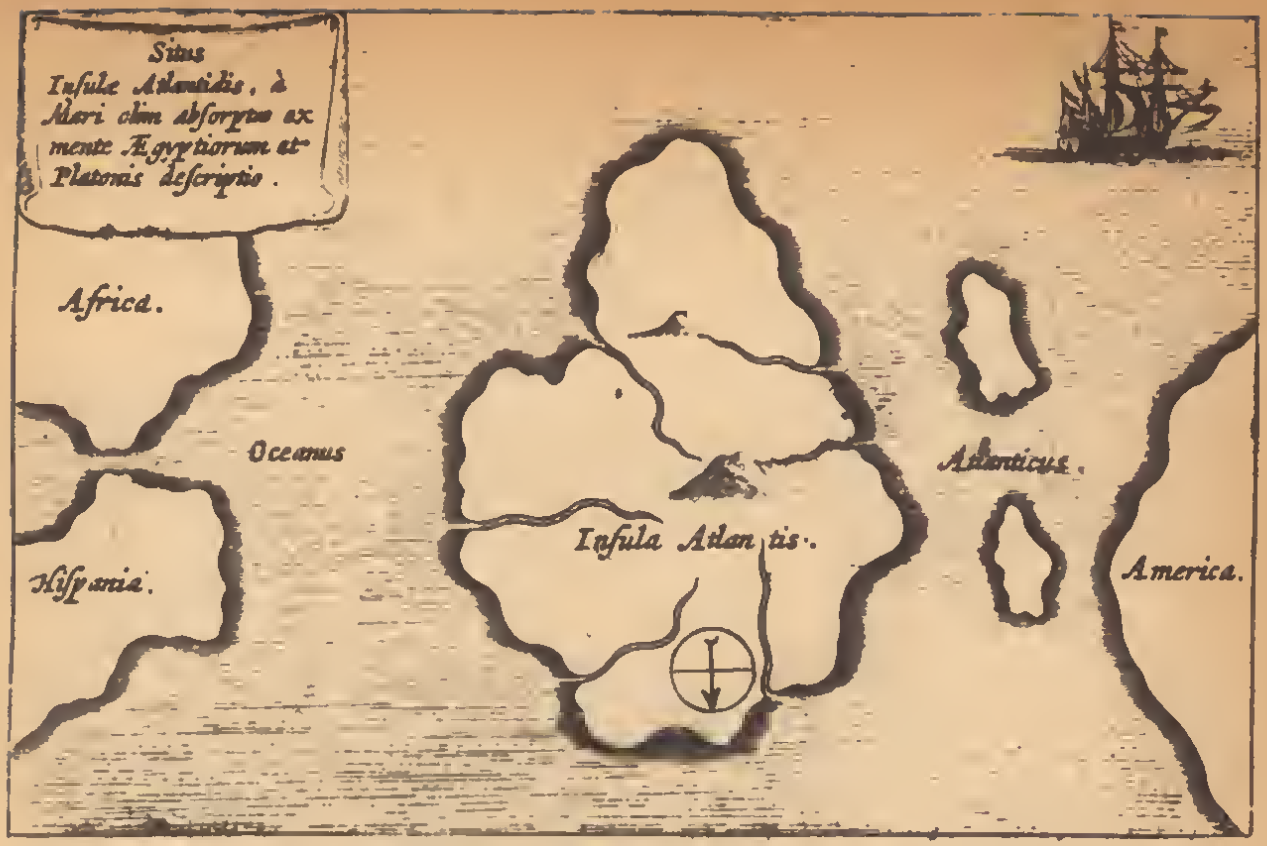


Fig. 1: Map of Atlantis as shown in *Mundus subterraneus* by Athanasius Kircher, published 1678. North is at bottom of map

the name; nobody at his time did; nobody after him did without reference to Plato. Plato's own pupil Aristotle did not take it literally and later classical writers, as, for example, Pliny the Elder, put the whole burden of the proof on Plato's broad shoulders.

Now the first of the two "dialogues" is actually a discussion on Pythagorean philosophy. The people taking part in it are Socrates and three of his friends, named Timaios, Kritias and Hermokrates. The discussion is laid at about the time when Plato was born, presumably as a device so that he could keep himself out of it.

After some preliminaries, one of the speakers tells that Solon traveled to Egypt at the time when a king whom the Greeks call Amasis (meaning Aahmes II) ruled the country. In reality, Aahmes II did not rule when the (historical) Solon traveled to Egypt. The trip must have been some time between 593 B.C. and 583 B.C., while Aahmes II became king more than a dozen years later, in 570 B.C.

However, this is a minor detail. The Egyptian priests tell Solon that "she"—the goddess Isis of the Egyptians, who is taken to be the same as the goddess Athena of the Greeks—founded "this city" (Saïs) 8000 years ago and "your

city" (Athens) a thousand years earlier.

Of course, neither city was founded at such an early date. This discrepancy, which Plato's readers would have spotted at once, is explained away with a tale of recurring catastrophes that destroyed the original cities.

The story, still relating what the Egyptian priests are supposed to have said, goes on to tell about a large island in the Atlantic Ocean. Strangely enough, this statement about the ocean is accompanied by a remark that it "was then navigable."

The name of that island, at any event, was Atlantis and on it there was "a great and wonderful empire which had rule over the whole island and several others, as well as over parts of the continent . . ." After having spread to lands bordering the Mediterranean, "vast power thus gathered into one, endeavored to subdue at one blow our country and yours . . ." One by one, the cities or nations were subdued, except for the Athenians who "defeated and triumphed over the invaders, and preserved from slavery those who were not yet subjected."

Then a catastrophe wiped out the Athenian army and, simultaneously, the entire island of Atlantis.

This is as far as the *Timaios* goes about Atlantis.

IN the later *Kritias*, there is a detailed description of the genealogy of the kings of Atlantis—descended from the gods, of course — and of the royal city and the palace. I am not going to waste any space repeating this description here. It is sufficient to say that the whole tenor of it is to show that the Atlanteans were mighty and rich. Especially the abundance of metal is stressed, gold and silver and bronze and o*richalcum* (we don't know what was meant by this word, but it is clearly stated that only gold was more valuable).

After Plato had given all the details of the land and the palace, he obviously found himself at a loss. The "dialogue" goes on for roughly another printed page and stops at the instant when Zeus is ready to pronounce sentence.

After reading all this, you had the following choices:

The first one was to consider the whole an allegory for purposes of philosophical discussion. This is what most, if not all, people did until a few hundred years ago.

The second choice was to take every word at face value, which meant assuming a major catastrophe that destroyed a large island, almost a small continent, in the past. But if you wanted to take the second choice, you quickly ran into a few difficulties, of which the very first was the dating.

According to the *Timaios*, the



Fig. 2: Warriors of "Sea Peoples" pictured at temple of Medinet Habu, Egypt

goddess founded the original Athens 9000 years before Solon's visit to Egypt, which would be about 9600 B.C. in our method of dating. But in the *Kritias*, Atlantis was destroyed 9000 years ago, leaving no time for the Atlanteans to be defeated by the warriors of the newly founded city. Or else the other way round: leaving no time for the newly founded city to grow and to produce an army which could defeat such a mighty invader.

Also, if you wanted to take the second choice, you still did not know where to put Atlantis, for the story only says that it was in the ocean beyond the Pillars of Hercules. Nothing is actually said about direction.



Fig. 3: Warrior of "Sea Peoples" with round shield, also from Medinet Habu

Father Athanasius Kircher, in 1678, drew a map which has become standard (Fig. 1) for generations of Atlantomanes, but although the legend on the map says that it followed Plato's description, this happens to be somewhat



Fig. 4: Outline of ship of "Sea Peoples" from Medinet Habu (top)
Outline of ship from Brandskogen, Sweden, same period (bottom)

exaggerated. There just is not that much description.

Now if you did not want to take the first choice because this was much too simple, and found that you could not actually follow the second one, there remained a third choice, namely to try to find out what Plato "really" meant. "Obviously" he had slipped some place, either as far as directions or as far as chronology are concerned. The third choice is what produced about 2000 books in not quite 300 years.

I must have read at least thirty of them and each one required a rather drastic "suspension of disbelief" to follow the reasoning of the author.

However, there still remained what might be called choice numero 1 B. It runs about as follows:

Granted that Plato wrote an allegory for philosophical purposes, we might look for actual facts which he utilized. Writers hardly ever invent something out of their imagination only. If they describe a person, they have a real person in mind, one they know, have heard or read about. If they describe a train crash, they have a real one in mind or at the very least the fact that there are train crashes. Calling such direct or indirect memories "sources," one could legitimately ask what "sources" Plato had used.

This particular line of questioning was caused by one fact that was noticed early. His description of the royal palace of Atlantis



Fig. 5: Map of Helgoland drawn 1650 by Johannes Meyer, based on local tradition. Black area in lower left is 1956 area of island. Circle "off shore" is location of *Steingrund*

bears a most striking resemblance to Scheria, the city of the Phaiakians in Homer's *Odyssey*. Scholars have established as many as thirty points of agreement between the two cities. And the *Odyssey* had its present form long before Plato was born.

That Homer, in turn, is assumed to have had a "source," namely an actual city, probably Tartessos in Spain, is not too important at this point. At least this item of Plato's story had a definite source.

One could even go farther and say that if Homer did have Tartessos, the Tarshish of the Bible, in mind for his city of Scheria and if Plato knew this, then the idea of the destruction came from the same source. For, in the *Odyssey*, Scheria is an existing city in the far west. In Plato's time, the actual city no longer existed.

Other such "sources" could be found quickly. The idea of recurring catastrophes was Babylonian. That there were earth-

quakes, Plato knew from personal experience. One which happened in Greece too early for his personal memory—he must have been in the crawling stage at the time—inundated and partly destroyed a small Greek island. The name of that island was Atalantë. In short, among his direct and indirect memories there was the fabulous city, the catastrophe and even the name! Everything else was an exposition of his own philosophy.

Well, where does Pastor Spanuth come in?

Pastor Spanuth, in my opinion, has succeeded in discovering another very important "source" for Plato.

In the first place, he revised the chronology. Those 8000 or 9000 years which Plato was throwing around made no sense historically. But the Egyptians, even quite recently, went by 30-day periods of calendar determination, based on the phases of the Moon. They counted 12 such periods as the year of their neighbors.

Now if the figure of 8000 refers to 8000 such 30-day periods —of which a visiting Greek may not be aware — we get an actual figure of 666 years. Since Solon's visit was around 580 B.C., the time of the invasion comes out to about 1250 B.C., with a leeway of a number of years, since the 8000 was clearly rounded off in one direction or the other.

THE invasion would fall in the reign of Rameses II "the Great," who died in 1225 B.C., after a 67-year rule, at the age of about 90. There is no such event in his lifetime. But only about 50 years later, under the rule of Rameses III, there was a major invasion of Egypt and nearby countries.

The invaders were the Libyans, assisted by the "sea peoples." Rameses III later did produce the "documents" about which Solon spoke. They can still be seen on the walls of the temple at Medinet Habu. No doubt there was a major invasion at that time and large-scale battles.

The "sea peoples" (Fig. 2, 3 and 4) do look rather familiar. Their tribes, in the inscriptions, are named *Pherest, Saskar* and *Denen.*

Pastor Spanuth thinks that this is the way an Egyptian scribe would have expressed the tribal names which, in English, read Frisians, Saxons and Danes.

If large groups of North Europeans started moving southward, the result could well be what Plato said in a highly condensed form. They would move comparatively slowly, over many years, if possible making friends with the people they met — the Libyans of the Egyptian records — and finally attack the rich lands, Egypt and the neighboring Hittite Empire.

The historical facts are that the Hittite Empire broke up at just that time and Egypt was severely threatened but managed to survive. The attackers, as later history had demonstrated repeatedly, would probably win for a long time but weaken themselves in the process until a final battle, which might be comparatively minor, breaks their back. It may have been Athens that broke it.

A small side issue is what happened to the "sea peoples" after their final defeat. Pastor Spanuth makes an interesting suggestion. The Hebrew version of the *Pherest* is *phelestim*. Philistines.

I have to mention that Pastor Spanuth does not claim the credit for having thought of all this first. The revised dating was first suggested by the Swedish polyhistor Olaus Rudbeck in 1675. The idea that the invasion experienced by Rameses III might have been the "source" of the invasion told by Plato was suggested first by the German philologist Prof. W. Christ in 1886 and immediately afterward (and independently) by the English historian K. T. Frost.

Well, the Egyptian pictures are pretty convincing — these pictures, incidentally, were originally published by James Henry Breasted in a book *Ancient Records of Egypt,* Chicago 1906. Plato's "sources" now begin to take on a well-rounded look.

So far, I find myself in wholehearted agreement with the material collected by Pastor Spanuth. But he goes farther.

Since the "sea peoples" were a Danish-Frisian army, bringing horned helmets, round shields, a special kind of sword and amber (Spanuth takes Plato's orichalcum to mean amber, which is very likely correct) to the eastern Mediterranean, then the place Plato named Atlantis must have been in the Danish-Frisian area.

His idea is that in, say, 1300 B.C. and earlier, there was an empire in the north, comprising present-day Denmark and southern Sweden with the islands in between. Its capital, with the king's castle, was in the western part of this empire, near the sea, which in this case would be the North Sea. The present island of Helgoland is taken to be the western headland of this section. The king's castle was inland from there.

There are quite a number of single facts which he can quote.

This area was the original amber country; the larger amber deposits of East Prussia were not discovered until much later, at the time of Emperor Nero of Rome.

Helgoland once was much bigger. In 1650, one Johannes Meyer drew a map based on local legends (Fig. 5). It may be somewhat

exaggerated in size, but it does give an idea of how much dry land there was in the eastern North Sea in times still dimly remembered several hundred years ago. The coastline did fluctuate and, at one time, one might have been able to walk from present Helgoland to present Denmark.

PASTOR Spanuth thinks the king's castle was located to the east of the present-day Helgoland, in an area labeled *Steingrund* (stony bottom) on current nautical charts. Indubitably there are ruins of buildings and walls in the *Steingrund*. But that they were a king's castle still remains to be proved, if it can be proved.

As regards the catastrophe, Pastor Spanuth can, of course, say that the *Steingrund* now is at the bottom of a sea, though the water is not very deep. He does make the interesting statement that the great exaggeration that crept into Plato's story could be due to a simple linguistic confusion.

Supposing, Pastor Spanuth said, as in the case of Rome, the name of the empire and of its capital had been the same? If the city of Rome had been destroyed, say by a volcanic eruption, somebody with a taste for bigness could understand that the whole Roman Empire had been burned in a super-colossal catastrophe if somebody said "Rome is destroyed." Pastor Spanuth does think that the king's castle, "in one bad night and one day," as Plato has it, sank beneath the waves and he assumes that the castle and capital gave its original name, whatever it was, to the whole empire.

On principle, I am in favor of a very thorough investigation of the *Steingrund* with modern means of underwater salvage. The results would be rewarding in any case.

I don't think that Pastor Spanuth's thesis that this was the old Danish-Frisian empire's capital, which Plato named Atlantis, will be borne out. If it should be, however, I shall bow before a brilliant piece of reasoning with some luck thrown in, as has happened in the case of Schliemann's discovery of Troy.

In the meantime, I am satisfied that Spanuth's diligent reading has turned up the identity of the warriors from "Atlantis" who invaded Egypt in 1200 B.C.

—WILLY LEY



The Gentlest Unpeople

By FREDERIK POHL

Unswervingly considerate and ever so polite, they were helpful to a fault . . . even if the fault happened to be a monster out of space!

I

Illustrated by WOOD

POPAGATOR and The Slide stopped at the seventh square and rested under a tinkleberry tree. They were nearly equal in points, but Popagator's time was already several seconds faster than The Slide's.

Popagator flung himself gleefully on a hummock of damp green sand and cried: "Concede the game, friend, concède it! I've as good as won. And I will now lead you in our lifetime series by eight hundred and six games to seven fifty-nine!" He spoke in English; it was all the fashion that year.

The Slide snarled: "Shut up and throw."

Popagator merely smiled—well, no. He didn't *smile*. He couldn't; he had no lips to smile with, being only a Venusian and a scrawny, shrunken one at that. But he in-





dicated polite amusement. He toyed idly with the gem-encrusted hilt of his whirlarang and made a courteous observation.

"I see," he said, diplomatically changing the subject, "that the monster has been this way." He sat up and sniffed. That was not necessary; both of them had long ago detected the rancid reek of the monster.

The Slide said moodily: "I wish that fellow ahead of us would play through so we could get on with our game." The fruit of the tree overhead tinkled merrily in the soggy wind.

Popagator stood up and made a couple of practice tosses, whishing air noisily through his bony mouth-cavity. It was the equivalent of a nonchalant whistle. The whirlarang spun up into the cloudy air, hovered, sailed high, dipped and returned to his hands.

He caught The Slide's eye and said apologetically: "A little sloppy on the back-spin, I'm afraid."

The Slide grumbled unwillingly: "No, it would have been a ten-pointer at least. You're at the top of your form today, Popagator. I wish we could get this game over with."

THE Venusian ahead of them, it was true, was taking an ungodly length of time to play the eighth square. He was slumped against a dike that held a water trap, in the middle of the looped grove of twiny trees that made the eighth square such a tricky over-and-under shot. His head was down, as though he were asleep, and his whirlarang was not in his hand.

"Inconsiderate," growled The Slide.

In truth, it was. No doubt the fellow was taking a little rest, too, just as they were, but, all the same, it was very far from being sportsmanlike.

Popagator frowned — well, no. He couldn't frown any more than he could smile, for much the same reasons. It takes loose folds of flesh either to smile or to frown. There are no loose folds on a Venusian's face; in fact, there is no external flesh at all, or none to speak of, since they are arthropods.

Popagator caught another whiff of the sour monster odor and coughed chokingly. To take his mind off it, he clattered his whirlarang noisily from "hand" to "hand," admiring the play of light from the sparkling facets set into the hilt.

Venusians are all great admirers of point sources of light, since the clouds of their atmosphere make such common objects as sun and stars completely unknown to them. And Popagator's whirlarang, gemmed like a Pharaoh, was a particularly noble instrument. It had been in his

family for one hundred and nine generations.

Popagator stroked the worn hilt reminiscently, thinking of the splendid comeback he had made on square five when, trailing by a point and a half, he had thrown a perfect triple reverse to catch up in points and lead in time.

All Venusians are skilled in the use of the whirlarang; Popagator could not remember a day, since his first dim memories as a tiny imago, when it had not been an obsession with him—first as a matter of theory, then, as he passed the larval and soft-bodied stages and developed the hard limbs that came with adult life, as a matter of hourly, daily and incessant practice. It was a major fact in the life of every Venusian. They had very little else to do.

The whirlarang itself was basically the same instrument that Australian bushmen, forty million miles away, had themselves developed in the dawn of their crude culture. But where loinclothed savages had found only a hunting instrument and a weapon of war, Popagator's enormously cultured race had refined it, had redesigned and rebuilt it out of a complex assortment of materials far beyond the resources of a savage, and had surrounded it with a code of behavior and rules that turned a whirlarang round into a contest as complicated and as absorbing as chess or contract bridge, with the added requirements of strength and enormous physical skill.

"I AM tired," rasped The Slide, "of waiting for that fellow to play through! They shouldn't allow singles anyway."

Popagator soothed: "Let us walk forward to the next square. That is polite, not ill-mannered. And perhaps it will remind him that we are waiting."

He moved forward over the sandy, spongy ground with a clickety-click of his bony members, The Slide click-scratching moodily along behind. The closer they got to the silent Venusian on square eight, the stronger the fetid, repulsive monster stench became.

"Whew," choked The Slide. "If I had known it was going to be this bad, I never would have—"

He stopped.

Both stopped, not only speech but movement.

There was a reason why the idle Venusian on square eight was not playing through, and the reason was this:

He was dead.

His hand-member was split open, and so was his lolling head. Bluish tricklings of brain and nervous tissue leaked nastily out. His whirlarang was missing.

Dead.

Murdered.

Popagator looked at The Slide,

and The Slide stared with all of his eyes at Popagator.

"Murder," said Popagator at last. "It's a case for the Justice Machines."

The Slide nodded—well, no. But he gave assent, in the way customary to Venusians.

"It is murder," he echoed. "We must report this with all possible haste."

"Right," Popagator agreed. "Well, play, friend! We've got fourteen squares to go and we must hurry. We must notify the Justice Machines the very moment we finish!"

II

THE monster sat on the tail strut of his rocket, whistling. He turned over the whirlarang he had taken from the Venusian, admiring the play of light on the rubies and diamonds set into its handle.

"Son of a gun," he said aloud, hiccoughing. "This sure beats working for a living!" He tilted a stainless steel flask to his lips and belched happily.

The monster's name was David T. Jiminez, and he was a certified space explorer in the employ of the I.G.Y. He tossed the whirlarang into the air and clumsily caught it. He was forty-nine years old, and for the first time in his life he was sublimely happy.

Jiminez emptied the flask and tossed it away. "Hi-diddle-de-dee," he sang. "The spaceman's life for me!"

He banged the whirlarang against the side of his rocket, hiccoughed, frowned and thought for a second. That wasn't such a good idea. Jiminez had no very good idea of just how fragile the hull of a rocketship was—"I don't dig that science jazz," he had told the I.G.Y. personnel office disarmingly—but, you never know, maybe he might knock a hole in it. Why take a chance? There was plenty of junk around.

He prowled through a heap of parts, tools and instruments that were tossed rusting on the sea-green moss. There was a black box, forearm length, with a hinged lid; on it was stenciled:

CAUTION
Contents Fragile. Stow in padded locker. Protect against jolts and jars.

He opened the lid, hefted the silvery tube inside thoughtfully, nodded and began to bang it against the whirlarang, trying to loosen the gems from their setting.

A clicking, rasping voice from behind him said inquiringly: "O Monster?"

Jiminez turned around belligerently. It was one of the damned bugs—naturally; there weren't any other human beings in this part of

Venus. That was what made it so nice.

Jiminez disliked people, but he couldn't stand the bugs. It wasn't so bad that they were more or less the shape of a human being, or even that they lived in houses like human beings, used tools like human beings, even operated machinery like human beings—and kinds of machinery that, in some cases, humans couldn't quite match, or even understand.

What was really bad was that they *talked* like human beings.

That, in Dirty Davey Jiminez's opinion, was pretty gaw-dam uppity of them, giving themselves airs. He had no idea that the Venusians did it from motives of purest politeness, since humans had shown themselves unable to grasp the barest fundamentals of the Venusian tongue.

He snarled, "Beat it, you."

DELICATELY turning away from Jiminez's breath, the Venusian said apologetically, "O Monster, I am Popagator. Isn't that the whirlarang of Wnotagashti the Drum?"

"You bugs gimme a pain," Jiminez said impatiently. "How'm I supposed to know?"

"Wnotagashti the Drum has been killed," the Venusian explained helpfully. "His head was split open. You were in the area just before it happened."

Jiminez thought for a moment, weaving slightly. "Oh, yeah, that. I tell you what happened, buster. I took it off him and he give me an argument. Well, I lost my temper. I mean it was a gaw-dam case of deliberate and insupportable rudeness, and if there's one thing I can't stand, it's a lot of gaw-dam rudeness. You know how it is. So I bashed him."

The Venusian moved inconspicuously to windward. He said compassionately: "A terrible ordeal, O Monster. Wnotagashti the Drum must have been deranged."

"That's what I thought," Jiminez agreed. "Now why don't you beat it so I can get a little work done around here?"

"Certainly. But—O Monster, there is one thing."

"Now what? Ain't you got any consideration? I got plenty on my mind already, you know."

"The Justice Machines," said Popagator apologetically. "My whirlarang companion, The Slide, has notified them of the accident to Wnotagashti the Drum. They will surely investigate you, O Monster."

Jiminez straightened up with faint alarm. "What the devil you talking about?" he demanded.

Popagator whished air noisily through his mouth-cavity for a second in a disarming way. He said: "It is their function, O Monster. They are devices, like those

which you call 'harness bulls.' One will come to interview you in this matter, perhaps quite soon."

"But the little rat gimme a hard time!" Jiminez protested, his stomach moving queasily. What was wrong here? Had he made a mistake of some sort? He said: "Dint you hear me? I only took the stinking thing away from him. And right away he *argues* with me! Talk about bad manners, bub, I tell you this was the *worst*."

"I understand," Popagator sympathized. "It is very clear, O Monster. You need only tell this to the Justice Machine, that is all. But I wished to notify you that it was coming, as an act of courtesy."

"Sure," said Jiminez, ungraciously, but feeling slightly more relaxed. "All right now, would you do me a favor and get lost? I got things to do, Charley. I can't spend the whole day talking to every lousy bug that comes along, understand?"

"I understand, O Monster," Popagator said in grave apology. "Good-by."

JIMINEZ pawed around the junk on the ground until he found another flask and took a long pull on it.

Confidence flowed back into him. He wiped his lips and sat down for a moment to rest—well, no. He sat down to finish the jug.

Jiminez had not always been a paid space-traveler for the International Geophysical Year (as it was still quaintly called). For thirty-five years of his life, in fact, he had been a jockey.

That was all behind him now—mostly because of the trouble the State Board gave him in New York over the 1983 running of the Belmont 'Cap. The nag involved was named Heuristic Harry, and when he beat the finest three-year-olds of his day by six lengths, naturally there were questions. The benzedrine sulfate they found in Heuristic Harry's saliva provided some of the answers, and that was the end of the line for Jiminez's career as a jockey, at least in that part of the world.

A setdown jockey pushing fifty doesn't have many chances to make a living. And even somebody like Jiminez doesn't like to resign himself to starving to death.

He tried Mexico for a while, but there were all too many setdown jocks fighting for mounts there, and not much money anyway. Jiminez had got used to a lot of money.

And then, when he saw the ad, he had drifted toward the I.G.Y. district office. It seemed that fewer than one man in ten thousand had the peculiar genetic constitution that made it possible for him to endure the cosmic radiation that killed off most humans.

It seemed further that small men —ex-jocks, for example—were particularly useful for space travel, since they didn't take as much room.

Jiminez still laughed out loud when he remembered the personnel officer's face. The man had stared silently at a blank wall for nearly five minutes, his mouth working soundlessly, with Jiminez's completed test forms in front of him. But finally he had signed them, stamped them "Approved" and turned his back until Jiminez was out of the room. It looked, thought Jiminez, as though they were having real trouble finding the kind of men they needed.

So—well, first he had tried to hold them up for double the usual pay, and failed; he had listened to an appeal to his sense of altruism and dedication to human progress from another I.G.Y. man, laughed in the man's face and drifted away.

But there wasn't much else to do, and that was a fact.

And then he had been stuck in a hotel room, wondering how to get out without paying the rent. And there had been a magazine. Jiminez wasn't much of a reader, but it was a long wait until the night desk clerk would sneak out for a quick beer, so he painfully spelled out the article on the first Venusian exploration parties.

And then Jiminez realized just what opportunities were open to him under the auspices of the I.G.Y.'s space-exploration program.

HURLING the second empty flask away, Jiminez stood up, wobbling.

He picked up the whirlarang from the ground and, still carrying it, lurched over to the vats he had scrabbled out of the soggy Venusian soil. It was a ritual with him; nearly every time he finished a flask, he inspected the progress of his mash, to make sure that there would be more when that was gone.

The mash had stopped bubbling. Nearly all the fermentation was over; it was almost time to dip out the sour juice and distill it. There would be, he calculated with difficulty, somewhere upward of fifty gallons of what you could call either beer or wine, as you chose, for him to push through the still.

It was a good little still. It had been designed by some very high-priced talent to meet the needs of explorers for safe, potable water, and it worked just as well for Jiminez's purposes. It would give a high, powerful yield. Call it ten gallons of approximately hundred-proof brandy—if you wanted to call it brandy. Sometimes he thought of it as whiskey, sometimes as gin; it didn't really resemble anything on Earth. But

it would be ten gallons of something.

At a quart a day—and he could make do with that—it would carry him through another month and leave a two-week supply, or nearly, for the return flight to Earth.

That was very good. In another month, it would be just about time to take off for Earth again, according to the pre-set flight patterns built into the rocket's controls. And by then he would be ready.

Grinning happily, Jiminez lurched back to the ship and tossed the whirlarang into the open hatch. It landed with a splintering crash—some metal-and-glass object had been in the way and was now a thousand fragments—and one of the sparkling jewels was dislodged.

It rolled away under the sturdy legs of the tripod that held the silent pressure-temperature-humidity recorder. But that didn't matter; he would find the jewel before he took off. Because then he would take out that recorder—along with a lot of other junk the I.G.Y. people had installed—and leave it to rust on the soil of Venus.

He had already tossed out about half the stuff; there was plenty of time to get rid of the rest. Those things weighed plenty. What Jiminez wanted was to get rid of them. In the first place, all those clever and expensive little devices would be of no use at all to the I.G.Y.—because Jiminez's landing plan did not involve a return to the Yuma, Arizona, base where he was expected. It was his notion to land in either New Zealand or the Belgian Congo. And in the second place, he needed all the weight he could save.

The glittering facets of the whirlarang were diamonds and rubies. The whirlarang itself was hollow platinum.

He had already acquired nearly six hundred pounds of assorted gems and precious metals, and it was necessary to balance that weight, now tossed carelessly into the ship, by an equal weight of unnecessary junk removed.

IT was all easy, amazingly easy. These funny-looking bugs that were the dominant race on Venus were just too polite to refuse anything. They never said no. They never stopped him, no matter what he did.

Jiminez began ladling fermentation liquor into the pot of the still. He was sweating profusely in the warm, wet air, but he didn't mind, not at all. The bugs lived in a sort of tinplate Utopia; all their major needs were cared for by machines, running soundlessly out of sight and providing food, power, clothes, homes. According to the magazine article, they had

lived that way for a thousand generations, since the time they nearly destroyed their planet in a war and substituted a code of politeness and a driving interest in games for more dangerous ways of life.

It worked out very nicely, whatever the reason. He walked into their houses and took away their very cooking utensils, and they didn't do a thing. The cook-pots were spun platinum.

He shinnied up the side of the largest structure in their town—a triangular tower four stories high; embedded zircons and topaz were his footholds and grips, and at the top were fourteen diamonds of a hundred carats and up. He pried them from their settings and the bugs didn't do a thing.

He pulled two hundred meters of silver wire out of the municipal power plant—that was before he caught onto the fact that silver was a waste of time—and for five days the town was without electricity, until the automatic machines were able to replace it. And the Venusians still didn't do a thing.

Only the bug this morning, the one he'd taken the whirlarang away from, *he* had acted up.

Jiminez rested from his labors. He poured himself a shot of his last batch of brew, held his nose, threw it down, retched briefly and felt it take hold. He pondered cloudily: Would there be any trouble about that?

Probably not, he thought. Let the Justice Machine come. As the other bug had said, he had an iron-clad case.

Anyway, he thought belligerently, let them try! It was plain self-defense, because how did he know what the bug was trying to do? Those whirlarang gadgets could kill somebody, couldn't they? And the bugs were pretty good with them. And—

Well, anyway. If the Justice Machine did come—and he was pretty sure it never would; it was just a bug bluff—he would outline the situation in a few simple words and it would go away again. That was all there was to it. The bug had, surprisingly, refused to yield the whirlarang—apparently it was only in the games that they acted normally selfish, greedy and competitive. So naturally he had hit the bug. He had to admit that maybe he wouldn't have done it if it hadn't been for a certain hangover. But he hadn't realized that the bugs could be killed quite so easily.

It was a plain accident, of course.

Besides, it was self-defense.

Furthermore, they wouldn't do anything about it.

He was very sure of that, right up to the moment when he heard the clattering and clanking of some-

thing big and mechanical coming out of the charred second-growth vines that were already springing up around his rocket, and an enormous metallic creation on wheels, with about a million waving arms and limbs, rolled dangerously up to him. And, wham, zowie, the limbs were all around him.

Dirty Davey Jiminez whooped and screamed and fought, but it didn't do a bit of good. The Justice Machine wasn't listening. It carried him away. He was caught, fair and square.

III

THE monster named Jiminez howled to the unfeeling machine: "You can't do this to me! I demand a mouthpiece. I'm practically an ambassador, don't you know that? I work for the gawdam International Geofistical Year! Ever hear of it, damn you? Sure you have! That's an official government thing in the United Nations, buster, and they got lots of moxie back on Earth. They'll have a fleet of warships down here so fast, it'll make your head spin! I mean—" He stopped, confused. The machine had no head.

Jiminez sat down and tried to think. He had a hangover that was getting worse with every minute, but it was time to do some thinking.



The machine had carried him, hollering and wriggling as much as he could, but whatever he did, it was no use; the machine was built to handle adult Venusians, and it managed a mere monster without effort or strain. It had taken him to the triangular tower. A door he had never suspected had opened and he had found himself in jail.

Anyway, he thought it was a jail because he was locked in, and because the machine stayed with him as a warden. There was a whole world under the gay, gem-studded homes of the Venusians that appeared on the surface, so Jiminez discovered. The Justice Machine bore him through corridors, past a dreadfully odorous place where filth-stained walls hinted at unpleasant events, into a narrow cell. There was a constant thrumming in the walls and floor. Machines were nearby, the machines, no doubt, on which the Venusians depended for all their goods.

The Justice Machine set him down and retreated to a post by the door.

JIMINEZ wiped his lips on the back of his hand, glowered at the silent machine and considered his position.

He admitted to himself through a pounding headache that it was a rough spot. He had been in rougher, perhaps, but he couldn't think when.

There was a sound from the door and a clicking, rasping voice inquired: "O Monster?"

It was the bug named—named—Jiminez managed to recall it: Popagator.

"Hah!" cried Jiminez, at once again enraged. "You, Popagator! I thought you told me the Justice Machine wouldn't bother me!"

"An error, O Monster," Popagator apologized.

"Error, hah? You bet it was an error. Popagator, I'm telling you, you better get me out of here! You hear me? Don't you know I got the whole United Nations behind me? You know what that means, don't you? One bleat from me and, wham, zowie, the great white fathers from far off in space will come blazing and shooting down with their devil birds. Man, I'm warning you!"

Popagator stepped nimbly out of range of the monster's breath. He said ruefully: "The thing is, Monster, the deed is a terrible one. You killed one of our people—"

"But he gimme a rough time!"

"—while he was playing the whirlarang game. It is not the killing, Monster. It is interrupting the game. Wnotagashti the Drum may have been deranged, but he was entitled to throw his whirlarang."

"IT was a accident!" roared Jiminez. "Self-defense, see? I only touched the gaw-dam bug, that's all. He split wide open. How was I supposed to know he was so—"

"Peace, O Monster," Popagator said with warm sympathy. "Now I understand your position. It was an accident?"

"Gaw-dam *right!*"

"Then," said Popagator with great assurance, "you need not worry. The Justice Machine will shortly examine you, when witnesses are found."

"Witnesses? What kind of witnesses?"

"Those who may know something to your benefit, Monster. For be assured, all of our people love you monsters very much. We wish to help you."

"The best way to help me," Jiminez snarled, "is to get me out of this stinking joint."

"Of course, Monster. It is only necessary to go through the formality before the Justice Machine." He shrugged—well, no. But he achieved the same effect.

Jiminez took a deep breath and sat down, grumbling. The crime, he began to understand, was not so much murder, or insecticide, but interfering with someone playing a game. That was a *definite* breach of regulations.

"But I didn't know!" Jiminez cried hoarsely. "Our customs are all different, and besides he gave me a hard time."

"Of course, O Monster," soothed Popagator. "I understand. Believe me, I shall see that the Justice Machine takes that into account at the hearing. And surely you will be released. Have no doubt of it."

"That's better," grunted Jiminez, slightly appeased.

"Of course," said the Venusian delicately, "if by any unforeseen chance—"

"Hey, wait!" squawked Jiminez. "What chance?"

"O Monster," said Popagator gravely, "there is always the theoretical and hardly to be considered possibility that the Justice Machine will make a mistake."

"*Now* you tell me! Listen, buster, I'm practically an ambassador, get that through your thick head! If anything hap—"

"But in that event," the Venusian interrupted quickly, "there remains the Appeals Panel. You see? Our machines are arranged so that even the hardly possible chance of error can still be corrected."

"It damn better be," said Jiminez in a surly tone. He slumped back against the wall. "Jeez," he groaned, "what a head. Say, listen. It looks like I'm going to be here for a while. I want you to do something for me."

"Command me, O Monster."

"You take a hike down by my ship, okay? There's a rack of steel bottles marked 'Emergency Water Supply.' Some of them are sealed tight. Don't pay any attention to those—they've got water in them—but bring me one of the others."

"Certainly, O Monster." Popagator turned to go.

He was halted by the Earthman. "Wait a minute! Come to think of it, better bring me two!"

THE trial didn't take very long. The Justice Machine waved its ropy steel tentacles and cascades of flickering lights flashed up and down its sides as it weighed the evidence of the eight Venusians. Nobody asked Jiminez to testify, but that was just as well. He wasn't paying much attention anyway. He caroled:

"The wind blew through the old man's whiskers.
His heart was filled with joy and song."

The Justice Machine squatted on its metal wheels, its innards clicking. No sound came out of the Justice Machine—it only received information; it did not broadcast any. The Witnesses were brief and explicit. There was a lot of talk about the lifetime Total Aggregate Whirlarang Weighted Score of the deceased Wnotagashti the Drum. Jiminez couldn't make much sense of it and didn't much try.

"He never had to wear pajamas—"

The Justice Machine's lights flickered incandescently and then, suddenly, all went out at once.

Three of the Machine's tentacles made a gesture toward Jiminez. The Venusians chattered excitedly among themselves.

"Because his whiskers were so long!"

Jiminez, heedless, sang drunkenly on, waving the stainless steel flask of home-stilled popskull in time with the clicking of the machine. At last he noticed that the small-bodied Venusian named Popagator was standing before him, humbly waiting his attention.

"O Monster?" said Popagator.

"Well, now what?" Jiminez demanded belligerently, hiccoughing.

"The trial is over, O Monster. The Justice Machine has reached its decision."

"It has, has it?" panted Jiminez, standing up with some difficulty. "Aha. Oho. And just a-*bout* bloody time, if you ask me. Well, I guess I'm about ready to shake the dust of this crummy planet off my feet anyhow. So long, bugs! So long, suckers! Here goes Jiminez for the Belgian Congo and a life-

time of luxury!" He laughed raucously, disregarding the fact that he could not take off for another three and a half weeks, and started for the door.

But he didn't make it. The Justice Machine flared in blinding colors and spun swiftly to come between him and the door.

"Hey!" cried Jiminez, more surprised than angry. "What's matter?"

Popagator came up behind him and coughed apologetically—well, no. What he did was to contract his dorsal chitin with a faint popping sound, but it was the equivalent of a cough.

He said regretfully: "O Monster, don't worry, but there has been some mistake. The Justice Machine found you guilty."

IV

THE Slide spun around three times, and on the third turn released the hilt of his whirlarang with that slippy-slidy motion that was the hallmark of his entire family. The whirlarang shot out straight and true for the grove of tinkleberry trees that indicated the target area of the eighth square. It circled the grove twice, flipflopped, described a lazy S and returned to its owner.

He caught it triumphantly. "A six-pointer!" he crowed. "Top that, Popagator!"

"I don't know if I can," Popagator confessed moodily. "I'm off my form today."

"You certainly are," jeered the larger Venusian. "It isn't often I take three straight games from you. What's bothering you? The Monster?"

Popagator nodded—well, no.

The Slide said sympathetically: "I know how you feel. It presses on your mind, thinking of him sitting in that cell and waiting for the Justice Machine to report on the decision of the Appeals Panel. I feel it myself."

"We've got to help him!"

"Of course, Popagator. It's cruel to worry another being—and Earth monsters are considered to be beings in spite of everything."

"I hate to think of him worrying, as he must be."

"Me, too."

Popagator said seriously: "I want to do something about it right away. I propose that we both visit him to cheer him up—the sooner, the better."

"Agreed!" cried The Slide. "Come, let's hurry! We'll finish this game and then—no more than two more, eh? And then we'll race to his side!"

BUT it was a long time for Dave Jiminez. With a full flask by his side, he was cold sober. That had never happened before in his life.

The Justice Machine was silent and motionless by the door; it never moved, never made a sound except once when, driven by desperation, he approached it. And then it was all sudden movement and threatening lashings of the arms, and he retreated and never approached it again.

But now it moved.

It rolled aside. The door opened and two Venusians clattered in—that Popagator and another one who had testified at the crazy mockery they called a trial. The Slide, his name was.

"This is a friend, O Monster," said Popagator. "He is on your side, just as I am. You mustn't worry. We'll see that you get out of here."

"Damn better," snarled Jiminez. "What's holding things up?"

"The Appeals Panel," said The Slide. "It is considering your case. Naturally, it will reverse the Justice Machine's decision."

"Naturally," growled Jiminez. "How long does *that* take?"

BOTH Venusians hesitated and looked at each other.

"It doesn't take long, O Monster," said Popagator at last.

"Better not." Jiminez looked at his visitors and made a repelled face. Still, even cockroach-shaped visitors were better than no visitors at all. Anyway, he felt slightly better. He felt good enough, in fact, to bend down for the ignored stainless steel flask. He took a long pull, moaned as his throat constricted, stood rigid for a moment and then relaxed.

"Zowie," he said hoarsely. "Say, just out of curiosity—what would happen if the Appeals Panel ruled against me?"

"Why," said Popagator, "the penalty for interference with the game is death, of course."

"D—" Jiminez paused, the flask half-tilted in his hand, his sallow face turning a dirty gray. "D—"

"Death," the Venusian finished for him. But he added, in a warmly sympathetic tone: "There's nothing to worry about, O Monster. We are on your side. We'll see that no harm comes to you."

"You will? *How* will you? What happens if you don't?"

"O Monster," said Popagator apologetically, "then the Justice Machine will exterminate you. But don't worry. It is nearly certain that the Appeals Panel will correct the error."

Jiminez slowly set the flask down and began loosening his collar.

He stared at the Justice Machine. Like all the Venusian gadgets, it seemed to be built to last. He could just imagine those ropy metal limbs wrapping around a Venusian and cracking the shell, wrenching the limbs off, ending life in a matter of seconds. With

a mammalian Earthman, all flesh and fat and fluids surrounding a frame of bone, it would be squishier. But no less final.

He swallowed, and found his throat was dry.

"That room—" He coughed. "That room I passed on the way in."

"The Room of Reckoning, O Monster?"

"If that's what you call the one that looks like a slaughterhouse, yeah. Is that the place where—"

"That is the place, O Monster," said Popagator gravely.

THERE was a clicking from the Justice Machine and lights flashed up and down its sides.

Jiminez jumped, kicking the flask at his feet clattering against the wall. He hesitated, torn between basic urges; he glanced frantically at the Justice Machine, then dropped to his knees, scrabbling for the flask and stopper.

He heard a sorrowful voice say: "Oh, my. This is very strange."

He looked up, apprehensive. Popagator and The Slide were clacking at each other in a low tone.

"What happened?" Jiminez bleated in fright.

Popagator looked at the other Venusian, and then spoke. "The Appeals Panel, O Monster. It has acted in your case."

"And?"

The Venusian's embarrassment was almost human. "Don't worry, O Monster. But they, too, found you guilty."

Jiminez fell back against the wall.

Then he surged forward, furious. "Now wait!" he bawled. "I took enough from you guys! I demand you get me out of this place right *now*. This damn thing has gone far enough and it isn't going any further, you hear? I'm *warning* you. Do you want the great white godlings from the sky coming down here shooting and stomping and—"

"Oh, no, O Monster," interrupted The Slide. "Of course not."

"*Well,* then! Then you damn better smarten up. I tell you there's going to be one terrible mess here on Venus if I don't get back. The I.G.Y. don't like it when us emissaries get knocked off, you know! And what the I.G.Y. says goes."

"That is true, O Monster," The Slide admitted. "It is known to all of us. The I.G.Y. is in charge of Venus."

"So you better get me out of here!"

The Venusians whispered fleetingly to one another.

"Speak up!" Jiminez cried. "Talk English!"

"We were only discussing how we could best help you," apologized Popagator. Then, in a voice as warm as toast, he added: "O



Monster, there is a way. It is clear that our machines are not equipped to deal with Earth persons. We must act against the machines."

"Meaning what?"

"Meaning, O Monster, that Venusians such as we cannot permit you to suffer unjustly. It is against our code of behavior." Popagator looked gravely at Jiminez with all of his eyes and said: "We are going to help you escape!"

JIMINEZ, alone in the cell, waited, drinking heavily. It was a searing torment to him, to think that he was trusting the word of the lousy bugs. Bugs were to be stepped on or sprayed with D.D.T. Bugs were to furnish him with the good things of life, such as jewels and gold, that would finance a happy and dissolute old age back on Earth. Bugs were not to be *trusted.*

But he had no choice.

And then, at last, there was a scratching at the door.

It was Popagator, The Slide and four other Venusians.

Jiminez froze, watching. Two of the Venusians stepped up to the quietly menacing Justice Machine and did something he couldn't follow to the arrays of lights and glittering projections on its sides.

There was a series of clicks and a flash of muted lights. And then the Justice Machine rolled quietly out into the corridor and away.

"We relieved it of duty, O Monster," said Popagator proudly. "It is a thing which is seldom done."

"Is it a thing that'll get me out of here?" Jiminez demanded.

"Oh, beyond doubt. Monster," Popagator added politely, "permit me to introduce you to our colleagues in this venture of rescuing you. Reading from left to right, these are Xxil the Predestinarian, Klamagog, Small Wnotagashti and Susternong. The Slide you already know."

"Pleased to meet you," Jiminez said absently. "Now let's get the— Hey. Small who?"

"Small Wnotagashti, O Monster."

"Any relation to—"

"Oh, yes. His son, O Monster."

Jiminez swallowed. "You mean this character's the son of the bug I knocked off and he's still willing to help me get out of this place?"

"We Venusians are extremely helpful and polite," Popagator explained. "Now we must go. We have to walk down this corridor, past the machine areas, into the Room of Reckoning. There—"

"Oh, no, you don't!" Jiminez cried. "I'm not going in that place! What is this, a doublecross?"

"It is necessary, O Monster," Popagator said patiently. "There is a chute in the Room of Reckoning which is used for removing the—" he hesitated—"which leads to a way out."

"There isn't any other way, O Monster."

Jiminez, carrying the last few drops of precious numbwit in the stainless steel flask, shambled after the little posse of Venusians. They went down the long corridor past the shuddering chambers of the machines, and no one was to be seen.

"We are here, O Monster," said one of them.

"Where?" asked Jiminez suspiciously.

"The Room of Reckoning, the avenue of your escape," Popagator said in a voice as sweet as honey and as warm as toast. "Open that door, O Monster, and walk in."

Jiminez, his hand on the door, turned, suddenly afraid, but they were crowding in on him, all six of them. The door was borne open and he was thrust inside.

And there was the Justice Machine, its ropy arms a-swing, in the room with the moldering spatters of green and blue, that now added a new range of colors to its scheme.

OUTSIDE, in the soggy evening air, the Venusians congratulated each other on the tact and delicacy with which they had handled the matter.

"It would have been cruel to let him suffer," said Small Wnotagashti solemnly. "My father would have wanted it this way."

"We have done well," agreed Popagator, and the others went about their errands, leaving him with The Slide.

The Slide stretched and yawned —well, no. But he relaxed. "We Venusians," he commented, "are polite and thoughtful to a fault. Tell me, do you think we can get another game in before dark?"

"If not," twinkled Popagator, "we can always play under the lights. *I* don't have any trouble with nighttime rules!"

The Slide excused himself: "This has been a strain, you know."

"Of course. It is well known that monsters require even more politeness and patience than our own race. It is the least we can do for them." They started off toward the first square. After a moment, Popagator added absently: "You know, in one way we have failed the monsters even yet."

"Failed them? What are you talking about, Popagator?"

"The ship," Popagator explained. "They expect it to be returned. Perhaps we should return it as a matter of common politeness, with a few of us aboard?"

He hefted his whirlarang and tossed it in a slow curve, following it with his eye.

"I am sure," he said thoughtfully, "that there would be many acts of politeness we could perform on their own planet."

—FREDERIK POHL

the gun without a bang

By FINN O'DONNEVAN

Making the ultimate anything takes the ultimate thought — and how ultimate is ultimate?

Illustrated by DICK FRANCIS

DID a twig snap? Dixon looked back and thought he saw a dark shape melt into the underbrush. Instantly he froze, staring back through the green-boled trees. There was a complete and expectant silence. Far overhead, a carrion bird balanced on an updraft, surveying the sunburned landscape, waiting, hoping.

Then Dixon heard a low, impatient cough from the underbrush.

Now he knew he was being followed. Before, it had only been an assumption. But those vague, half-seen shapes had been real. They had left him alone on his trek to the signal station, watching, deciding. Now they were ready to try something.

He removed the Weapon from its holster, checked the safeties, reholstered it and continued walking.

He heard another cough. Something was patiently trailing him, probably waiting until he left the bush and entered the forest. Dixon grinned to himself.

Nothing could hurt him. He had the Weapon.

Without it, he would never have ventured so far from his spaceship. One simply didn't wander around on an alien planet. But Dixon could. On his hip was the weapon to end all weapons, absolute insurance against anything that walked or crawled or flew or swam.

It was the last word in handguns, the ultimate in personal armament.

It was the Weapon.

He looked back again. There were three beasts, less than fifty yards behind him. From that distance, they resembled dogs or hyenas. They coughed at him and moved slowly forward.

He touched the Weapon, but decided against using it immediately. There would be plenty of time when they came closer.

ALFRED Dixon was a short man, very broad in the chest and shoulders. His hair was streaky blond, and he had a blond mustache which curled up at the ends. This mustache gave his tanned face a frank, ferocious appearance.

His natural habitat was Terra's bars and taverns. There, dressed in stained khakis, he could order drinks in a loud, belligerent voice, and pierce his fellow-drinkers with narrow gunmetal-blue eyes. He enjoyed explaining to the drinkers, in a somewhat contemptuous tone, the difference between a Sykes needler and a Colt three-point, between the Martian horned adleper and the Venusian scom, and just what to do when a Rannarean horntank is charging you in thick brush, and how to beat off an attack of winged glitterflits.

Some men considered Dixon all bluff, but they were careful not to call it. Others thought he was a good man in spite of his inflated opinion of himself. He was just overconfident, they explained. Death or mutilation would correct this flaw.

Dixon was a great believer in personal armament. To his way of thinking, the winning of the American West was simply a contest between bow and arrow and Colt .44. Africa? The spear against the rifle. Mars? The Colt three-point against the spinknife. H-bombs smeared cities, but individual men with small arms took the territory. Why look for fuzzy economic, philosophical or political reasons when everything was so simple?

He had, of course, utter confidence in the Weapon.

Glancing back, he saw that half a dozen doglike creatures had joined the original three. They were walking in the open now, tongues lolling out, slowly closing the distance.

Dixon decided to hold fire just a little longer. The shock effect would be that much greater.

He had held many jobs in his time — explorer, hunter, prospector, asteroider. Fortune seemed to elude him. The other man always stumbled across the lost city, shot the rare beast, found the ore-bearing stream. He accepted his fate cheerfully. Damned poor luck, but what can you do? Now he was a radioman, checking the automatic signal stations on a dozen unoccupied worlds.

But more important, he was giving the ultimate handgun its first test in the field. The gun's inventors hoped the Weapon would become standard. Dixon hoped he would become standard with it.

HE had reached the edge of the rain forest. His ship lay about two miles ahead in a little clearing. As he entered the forest's gloomy shade, he heard the excited squeaking of arboreals. They were colored orange and blue, and they watched him intently from the treetops.

It was definitely an *African* sort of place, Dixon decided. He hoped he would encounter some big game, get a decent trophy head or two. Behind him, the wild dogs had approached to twenty yards. They were gray and brown, the size of terriers, with a hyena's jaws. Some of them had moved into the underbrush, racing ahead to cut him off.

It was time to show the Weapon.

Dixon unholstered it. The Weapon was pistol-shaped and quite heavy. It also balanced poorly. The inventors had promised to reduce the weight and improve the heft in subsequent models. But Dixon liked it just the way it was. He admired it for a moment, then clicked off the safeties and adjusted for single shot.

The pack came loping toward him, coughing and snarling. Dixon took casual aim and fired.

The Weapon hummed faintly. Ahead, for a distance of a hundred yards, a section of forest simply vanished.

Dixon had fired the first disintegrator.

From a muzzle aperture of less than an inch, the beam had fanned out to a maximum diameter of twelve feet. A conic section, waist-high and a hundred yards long, appeared in the forest. Within it, nothing remained. Trees, insects, plants, shrubs, wild dogs, butterflies, all were gone. Overhanging boughs caught in the blast area

looked as though they had been sheared by a giant razor.

Dixon estimated he had caught at least seven of the wild dogs in the blast. Seven beasts with a half-second burst! No problems of deflection or trajectory, as with a missile gun. No need to reload, for the Weapon had a power span of eighteen duty-hours.

The perfect weapon!

He turned and walked on, reholstering the heavy gun.

There was silence. The forest creatures were considering the new experience. In a few moments, they recovered from their surprise. Blue and orange arboreals swung through the trees above him. Overhead, the carrion bird soared low, and other black-winged birds came out of the distant sky to join it. And the wild dogs coughed in the underbrush.

They hadn't given up yet. Dixon could hear them in the deep foliage on either side of him, moving rapidly, staying out of sight.

He drew the Weapon, wondering if they would dare try again. They dared.

A SPOTTED gray hound burst from a shrub just behind him. The gun hummed. The dog vanished in mid-leap, and the trees shivered slightly as air clapped into the sudden vacuum.

Another dog charged and Dixon disintegrated it, frowning slightly. These beasts couldn't be considered stupid. Why didn't they learn the obvious lesson — that it was impossible to come against him and his Weapon? Creatures all over the Galaxy had quickly learned to be wary of an armed man. Why not these?

Without warning, three dogs leaped from different directions. Dixon clicked to automatic and mowed them down like a man swinging a scythe. Dust whirled and sparkled, filling the vacuum.

He listened intently. The forest seemed filled with low coughing sounds. Other packs were coming to join in the kill.

Why didn't they learn?

It suddenly burst upon him. *They didn't learn,* he thought, *because the lesson was too subtle!*

The Weapon — disintegrating silently, quickly, cleanly. Most of the dogs he hit simply vanished. There were no yelps of agony, no roars or howls or screams.

And above all, there was no loud boom to startle them, no smell of cordite, no click of a new shell levered in . . .

Dixon thought, *Maybe they aren't smart enough to know this is a killing weapon. Maybe they haven't figured out what's going on. Maybe they think I'm defenseless.*

He walked more rapidly through the dim forest. He was in no danger, he reminded himself. Just be-



cause they couldn't realize it was a killing weapon didn't alter the fact that it was. Still, he would insist on a noise-maker in the new models. It shouldn't be difficult. And the sound would be reassuring.

The arboreals were gaining confidence now, swinging down almost to the level of his head, their fangs bared. Probably carnivorous, Dixon decided. With the Weapon on automatic, he slashed great cuts in the treetops.

The arboreals fled, screaming at him. Leaves and small branches rained down. Even the dogs were momentarily cowed, edging away from the falling debris.

Dixon grinned to himself — just before he was flattened. A big bough, severed from its tree, had caught him across the left shoulder as it fell.

The Weapon was knocked from his hand. It landed ten feet away, still on automatic, disintegrating shrubs a few yards from him.

He dragged himself from under the bough and dived for the Weapon. An arboreal got to it first.

DIXON threw himself face-down on the ground. The arboreal, screaming in triumph, whirled the disintegrator around its head. Giant trees, cut through, went crashing to the forest floor. The air was dark with falling twigs and leaves, and the ground was cut into trenches. A sweep of the disintegrator knifed through the tree next to Dixon, and chopped the ground a few inches from his feet. He jumped away, and the next sweep narrowly missed his head.

He had given up hope. But then the arboreal became curious. Chattering gaily, it turned the Weapon around and tried to look into the muzzle.

The animal's head vanished — silently.

Dixon saw his chance. He ran forward, leaping a trench, and recovering the disintegrator before another arboreal could play with it. He turned it off automatic.

Several dogs had returned. They were watching him closely.

Dixon didn't dare fire yet. His hands were shaking so badly, there was more risk to himself than to the dogs. He turned and stumbled in the direction of the ship.

The dogs followed.

Dixon quickly recovered his nerve. He looked at the glittering Weapon in his hand. He had considerably more respect for it now, and more than a little fear. *Much* more fear than the dogs had. Apparently they didn't associate the forest damage with the disintegrator. It must have seemed like a sudden, violent storm to them.

But the storm was over. It was hunting time again.

He was in thick brush now, firing ahead to clear a path. The

dogs were on either side, keeping pace. He fired continually into the foliage, occasionally getting a dog. There were several dozen of them, pressing him closely.

Damn it, Dixon thought, *aren't they counting their losses?*

Then he realized they probably didn't know how to count.

He struggled on, not far from the spaceship. A heavy log lay in his path. He stepped over it.

The log came angrily to life and opened enormous jaws directly under his legs.

HE fired blindly, holding the trigger down for three seconds and narrowly missing his own feet. The creature vanished. Dixon gulped, swayed, and slid feet-first into the pit he had just dug.

He landed heavily, wrenching his left ankle. The dogs ringed the pit, snapping and snarling at him.

Steady, Dixon told himself. He cleared the beasts from the pit's rim with two bursts, and tried to climb out.

The sides of the pit were too steep and had been fused into glass.

Frantically he tried again and again, recklessly expending his strength. Then he stopped and forced himself to think. The Weapon had got him into this hole; the Weapon could get him out.

This time he cut a shallow ramp out of the pit, and limped painfully out.

His left ankle could hardly bear weight. Even worse was the pain in his shoulder. That bough must have broken it, he decided. Using a branch as a crutch, Dixon limped on.

Several times the dogs attacked. He disintegrated them, and the gun grew increasingly heavy in his right hand. The carrion birds came down to pick at the neatly slashed carcases. Dixon felt darkness crawl around the edges of his vision. He fought it back. He must not faint now, while the dogs were around him.

The ship was in sight. He broke into a clumsy run, and fell immediately. Some of the dogs were on him.

He fired, cutting them in two and removing half an inch from his right boot, almost down to the toe. He struggled to his feet and went on.

Quite a weapon, he thought. Dangerous to anyone, including the wielder. He wished he had the inventor in his sights.

Imagine inventing a gun without a bang!

He reached the ship. The dogs ringed him as he fumbled with the airlock. Dixon disintegrated the closest two, and stumbled inside. Darkness was crawling around his vision again and he could feel

nausea rising thickly in his throat.

With his last strength, he swung the airlock shut and sat down. Safe at last!

Then he heard the low cough.

He had shut one of the dogs inside with him.

His arm felt too weak to lift the heavy Weapon, but slowly he swung it up. The dog, barely visible in the dimly lighted ship, leaped at him.

For a terrifying instant, Dixon thought he couldn't squeeze the trigger. The dog was at his throat. Reflex must have clenched his hand.

The dog yelped once and was silent.

Dixon blacked out.

WHEN he recovered consciousness, he lay for a long time, just savoring the glorious sensation of being alive. He was going to rest for a few minutes. Then he was getting out of here, away from alien planets, back to a Terran bar. He was going to get roaring drunk. Then he was going to find that inventor and ram the Weapon down the man's throat, crossways.

Only a homicidal maniac would invent a gun without a bang.

But that would come later. Right now it was a pleasure just to be alive, to lie in the sunlight, enjoying the . . .

Sunlight? Inside a spaceship?

He sat up. At his feet lay the tail and one leg of the dog. Beyond it there was an interesting zigzag slashed through the side of the spaceship. It was about three inches wide and four feet long. Sunlight filtered through it.

Outside, four dogs were sitting on their haunches, peering in.

He had cut through his spaceship while killing the last dog.

Then he saw other slashes in the ship. Where had they come from?

Oh, yes, when he was fighting his way back to the ship. That last hundred yards. A few shots must have touched the spaceship.

He stood up and examined the cuts. *A neat job,* he thought, with the calm that sometimes accompanies hysteria. *Yes, sir, very neat indeed.*

Here were the severed control cables. That was where the radio had been. Over there he had managed to nick the oxygen and water tanks in a single burst, which was good shooting by anybody's standards. And here — yes, he'd done it, all right. A really clever hook shot had cut the fuel lines. And the fuel had all run out in obedience to the law of gravity and formed a pool around the ship and sunk into the ground.

Not bad for a guy who wasn't even trying, Dixon thought crazily. *Couldn't have done better with a blowtorch.*

As a matter of fact, he couldn't have done it with a blowtorch. Spaceship hulls were too tough. But not too tough for the good old little old sure-fire never-miss Weapon . . .

A YEAR later, when Dixon still hadn't reported, a ship was sent out. They were to give him decent burial, if any remains could be found, and bring back the prototype disintegrator, if that could be found.

The recovery ship touched down near Dixon's ship, and the crew examined the slashed and gutted hull with interest.

"Some guys," said the engineer, "don't know how to handle a gun."

"I'll say," said the chief pilot.

They heard a banging noise from the direction of the rain forest. They hurried over and found that Dixon was not dead. He was very much alive, and singing as he worked.

He had constructed a wooden shack and planted a vegetable garden around it. Surrounding the garden was a palisade. Dixon was hammering in a new sapling to replace a rotten one when the men came up.

Quite predictably, one of the men cried, "You're alive!"

"Damned right," Dixon said. "Touch and go for a while before I got the palisade built. Nasty brutes, those dogs. But I taught them a little respect."

Dixon grinned and touched a bow that leaned against the palisade within easy reach. It had been cut from a piece of seasoned, springy wood, and beside it was a quiver-full of arrows.

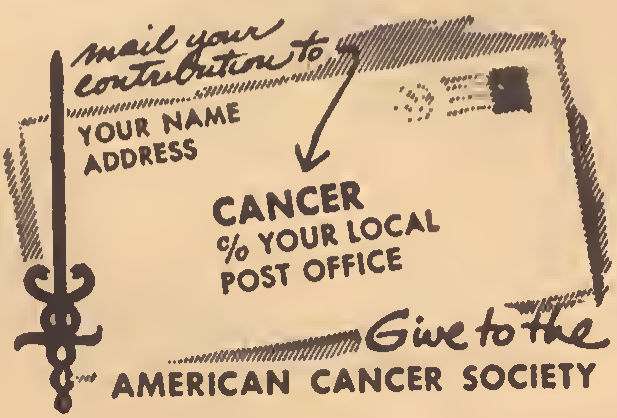
"They learned respect," Dixon said, "after they saw a few of their pals running around with a shaft through their flanks."

"But the Weapon—" the chief pilot asked.

"Ah, the Weapon!" exclaimed Dixon, with a mad, merry light in his eyes. "Couldn't have survived without it."

He turned back to his work. He was hammering the sapling into place with the heavy, flat butt of the Weapon.

— FINN O'DONNEVAN





GALAXY'S 5 Star Shelf

EARTH IS ROOM ENOUGH by Isaac Asimov. Doubleday & Co., Inc., N.Y., $2.95

ASIMOV doesn't have to leave our atmosphere at all in this collection, as you can gather from the title, in order to give his reader an enjoyable yarn. There are seventeen items, including some gag poems and short-shorts. The longest work is "The Dead Past," an ingenious rework of the antique theme of the time reviewing gadget. "Satisfaction Guaranteed," a U.S. Robot story, gives the reader pause. A suave, handsome, worldly robot? Heaven forbid! And "Kid Stuff" underscores the problems of elves in our crass, materialistic world.

Asimov mishmashes broad humor, pure fantasy, sensitive social studies in this volume, but finds room enough to suit most tastes.

THEORIES OF THE UNIVERSE, edited by Milton K. Munitz. The Free Press and Falcon's Wing Press, Ill., $6.50

SPECULATION is the birthright of any Homo Sap. But Universal Speculation is the do-

main of the so-called Egghead and carries the impressive title of Cosmology.

Munitz has collected the writings of an impressive group of savants from Plato and Aristotle to the moderns, Einsteins and Eddington, and to the ultra-moderns, Bondi and Hoyle. The ancient concepts of the Universe seem quaint today, but could we have done better with limited observational equipment and figuratively on our knees instead of standing on the shoulders of giants?

DOOMSDAY MORNING by C. L. Moore. Doubleday & Co., Inc., N. Y., $2.95.

SOMETIMES it just doesn't pay to be C. L. Moore. For almost anyone else, this rating would be "Excellent." For Mrs. Kuttner, however, it's something less than that.

Like Heinlein in *Double Star*, Miss Moore has chosen an actor to be principal protagonist. A has-been while still young, he has been shattered in spirit and career by the shock of his wife's desertion and violent death. He has sunk to the level of Cropper, itinerant laborer. Unexpectedly, he is summoned by the Secretary of COMUS (Communications, U.S.) which, under President Raleigh, rules America and has become a benevolent dictatorship.

The Secretary informs Rohan, the actor, that he is to take over direction of a traveling troupe in California, a rebellious state from which COMUS has been forced to withdraw control. The Californians reportedly have something called Anti-Com, a weapon capable of destroying COMUS. Rohan's role in the counter-insurrection doesn't make sense, even to himself. Evidently his troupe is gimmicked for COMUS, but in no way he can figure. In addition, he has been hypnotized by an unknown party, and post-hypnotic compulsions add to his confusion. In further addition, his mental and physical processes are on the brutal side, unlike Heinlein's sensitive ham.

As I said — under another author's byline, the yarn would have rung gongs, but the incomparable Moore could have done better.

THE SUN by Giorgio Abetti. The Macmillan Co., N. Y., $12.00

ALTHOUGH *The Sun* rose for the first time in Italy some twenty years ago, this third revision marks its first appearance in English. Since that time, it has been considered the authoritative treatment of this vital subject for professional and amateur alike. The present edition has incorporated all the latest theories, observational techniques and refine-

ments of equipment into a volume that is surprisingly intelligible to the layman. No small credit in this respect is due the translator, J. B. Sidgwick.

THROUGH A GLASS DARKLY by Kathleen Norris. Doubleday & Co., Inc., N. Y., $3.75

HITHERTO a stranger to these pages, the reknowned K. Norris has penned a disturbing fantasy. Her book is in two parts; the first takes place in Foxcrossing, a town in the United States of another plane of existence. Although not a Utopia, it is considerably nearer being one than ours. Death liberates a haphazard portion of us into that plane. Hunger and war have been abolished. A land-rent law insures that all people have the right to use the land, which remains government property.

War is averted by a form of appeasement or a turning of cheek. Physical science is at approximately our stage of development.

Miss Norris nowhere makes any attempt at rationale; it is merely understood that they are a bit higher in the scale of goodness. But in spite of their wonderful world, they remain human and tragedies can likewise mar their lives. Crossers-over arrive the same age as at their death, and local inhabitants somehow know of their coming.

Dr. Gil Saunders bewilderedly crosses over and is taken in tow by his new immediate superior at the atomic plant hospital, Dr. Trevelyan, and his exceptional wife and family. Miss Norris weaves a dreamlike spell in the first half of her book that is downright hypnotic. However, in the after half, the account of the reverse reincarnation in our plane of Saunders' fianceé, Cherry Trevelyan, degenerates into a meaningless puddle of tears. That first half, though, is truly memorable.

INTRODUCING ASTRONOMY by J. B. Sidgwick. The Macmillan Co., N. Y., $3.50

SIDGWICK must have found *Introducing Astronomy* a snap after the job of translation he had to do on *The Sun* by Abetti. In any case, this was a book that he had written during the war to help air raid wardens and observers pass dreary hours. It was a popular success then and should prove so again, particularly since the author has added new material and widened its scope.

It contains much information concerning the Solar System, Luna and the Constellations, to which alone half the book is devoted. A natural for beginners.

VANGUARD TO VENUS by

Jeffery Lloyd Castle. Dodd, Mead & Co., N. Y., $3.00

IT isn't my function to say how a book should have been written. There is nothing amiss, though, in saying that the manuscript would not have suffered if Castle had been forced to do a drastic revision. His premise is that ancient Egypt achieved space flight and colonized Venus. Since then, they have secretly revisited Earth periodically to keep abreast of progress. Our first Venus flight is being organized and the objective of a striking couple from an Egypto-Venusian flying saucer is to attempt to prevent its takeoff. Unfortunately for the story, they are remarkably inept and ill-informed.

There is a profusion of good characterization and background detail, but motivations and plot development take place literally and literately in a vacuum. Castle has accomplished the difficult feat of writing an unconvincingly convincing yarn.

CONSTRUCTING AN ASTRONOMICAL TELESCOPE by G. Matthewson. Philosophical Library, N. Y., $3.00

EXACTLY one year ago, I reviewed *How to Make and Use a Telescope* by Wilkins and Moore. I repeat the same caution as then — if you are not equipped materially and psychologically for precision work, you had better forget about undertaking the project. Lens grinding involves exactitude and patience, so much so, in fact, that neglected wives are referred to as "glass widows." It is immensely rewarding, however, and, as Matthewson asserts, makes a wonderful hobby for the meticulous. But so does observation, and sufficient energy should be reserved for the enjoyment of the fruits of toil.

I'm afraid I cannot offer a choice between the two books. They both cover the ground like a tight lawn.

— FLOYD C. GALE

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PERFECT ANSWER

By L. J. STECHER, JR.

Getting there may be half the fun . . . but it is also all of a society's chance of survival!

Illustrated by DICK FRANCIS

"AS one god to another — let's go home," Jack Bates said.

Bill Farnum raised a space-gloved hand in negligent acknowledgment to a hastily kneeling native, and shook his head at Bates. "Let's try Deneb — it's almost in line on the way back — and then we can call it quits."

"But I want to get back and start making some profit out of this. The Galaxy is full of *Homo sapiens*. We've hit the jackpot first trip out. Let's hurry on home and cash in."

"We need more information. This is too much of a good thing —it doesn't make sense. I know there isn't much chance of finding anything out by stopping at one more solar system. But it won't

delay us more than a few weeks, and it won't hurt to try."

"Yeah," said Bates. "But what's in it for us? And what if we find an inhabited planet? You know the chances are about two to one that we will. That'll make thirteen we've found on this trip. Why risk bad luck?"

"You're no more superstitious than I am," said Farnum. "You just want to get back Earthside. I'll tell you what. We'll toss a coin for it."

Bates gestured futilely toward his coverall pocket, and then remembered he was wearing a spacesuit as a precaution against possible contamination from the natives.

"And we'll use one of *my* coins this time," said Farnum, noticing the automatic motion. "I want to have a chance."

The coin dropped in Farnum's favor, and their two-man scout ship hurled itself into space.

FARNUM operated the compact computer, aligning the ship's velocity vector precisely while the stars could still be seen. Bates controlled the engines, metering their ravenous demand for power just this side of destructive detonation, while the ship sucked energy from space — from the adjacent universe on the other side of Limbo. Finally the computer chimed, relays snicked, and the ship slid into the emptiness of Limbo as the stars winked out.

With two trained men working as a team with the computèr and the elaborate engine room controls, and with a certain amount of luck, the ship would drop back into normal space a couple of weeks later, close beside their target.

"Well, that's that," said Farnum, relaxing and wiping the perspiration off his forehead. "We're back once again in the nothingness of nowhere. As I recall, it's your week for K.P. Where's the coffee?"

"Coming right up," said Bates. "But you won't like it. It's the last of the 'God-food' the Korite priests made for us."

Farnum shuddered. "Pour it out and make some fresh. With a skillet, you stink, but you're a thousand times better than Korites."

"Thanks," Bates said, getting busy. "It was the third place we stopped that they were such good cooks, wasn't it?"

"Nope. Our third stop was the Porandians. They tried to kill us — called us 'Devil spawn from the stars.' You're thinking of the fourth stop; the Balanites."

Bates shrugged. "It's kind of hard to keep them all straight. Either they fall on their knees and worship us, or they try to kill us without even asking questions. Maybe it's lucky they're all so primitive."

"It may be lucky, but it doesn't

add up. More than half the stars we visit have planets that can support human life. And every one that can does. Once there must have been an interstellar empire. So why are all their civilizations so backward? They aren't primitive—they're decadent. And why do they all have such strong feelings—one way or the exact opposite — about people from the stars?"

"Isn't that why you want to try one more system?" asked Bates. "To give us another chance to get some answers? Here's your coffee. Try to drink it quietly. I'm going to get some shuteye."

THE trip through the Limbo between adjacent universes passed uneventfully, as always. The computer chimed again on schedule, and a quick check by Farnum showed the blazing sun that suddenly appeared was Deneb, as advertised. Seventeen planets could be counted, and the fifth seemed to be Earth type. They approached it with the easy skill of long practice and swung into orbit about it.

"This is what we've been looking for!" exclaimed Farnum, examining the planet through a telescope. "They've got big cities and dams and bridges — they're civilized. Let's put the ship down."

"Wait up," said Bates. "What if they've got starman-phobia? Remember, they're people, just like us; and with people, civilization and weapons go together."

"I think you've got it backwards. If they hate us, we can probably get away before they bring up their big artillery. But what if they love us? They might want to keep us beside them forever."

Bates nodded. "I'm glad you agree with me. Let's get out of here. Nobody but us knows of the beautiful, profitable planets we've found, all ready to become part of a Terran Empire. And if we don't get back safe and sound, nobody *will* know. The information we've got is worth a fortune to us, and I want to be alive to collect it."

"Sure. But we've got the job of trying to find out why all those planets reverted to barbarism. This one hasn't; maybe the answer's here. There's no use setting up an empire if it won't last."

"It'll last long enough to keep you and me on top of the heap."

"That's not good enough. I want my kids—when I have them — to have their chances at the top of the heap too."

"Oh, all right. We'll flip a coin, then."

"We already did. You may be a sharp dealer, but you'd never welch on a bet. We're going down."

Bates shrugged. "You win. Let's put her down beside that big city over there — the biggest one, by the seashore."

As they approached the city,

they noticed at its outskirts a large flat plain, dotted with gantries. "Like a spaceport," suggested Bill. "That's our target."

They landed neatly on the tarmac and then sat there quietly, waiting to see what would happen.

A CROWD began to form. The two men sat tensely at their controls, but the throng clustering about the base of the ship showed no hostility. They also showed no reverence but, rather, a carefree interest and joyful welcome.

"Well," said Farnum at last, "looks like we might as well go outside and ask them to take us to their leader."

"I'm with you as usual," said Bates, starting to climb into his spacesuit. "Weapons?"

"I don't think so. We can't stop them if they get mad at us, and they look friendly enough. We'll start off with the 'let's be pals' routine."

Bates nodded. "After we learn the language. I always hate this part—it moves so slowly. You'd think there'd be some similarity among the tongues on different planets, wouldn't you? But each one's entirely different. I guess they've all been isolated too long."

The two men stepped out on the smooth plain, to be instantly surrounded by a laughing, chattering crowd. Farnum stared around in bewilderment at the variety of dress the crowd displayed. There were men and women in togas, in tunics, in draped dresses and kilts, in trousers and coats. Others considered a light cloak thrown over the shoulders to be adequate. There was no uniformity of style or custom.

"You pick me a boss-man out of this bunch," he muttered to Bates.

Finally a couple of young men, glowing with health and energy, came bustling through the crowd with an oblong box which they set down in front of the Earthmen. They pointed to the box and then back at Farnum and Bates, laughing and talking as they did so.

"What do you suppose they want us to do?" Farnum asked.

One of the young men clapped his hands happily and reached down to touch the box. "What do you suppose they want us to do?" asked the box distinctly.

"Oh. A recording machine. Probably to help with language lessons. Might as well help them out."

FARNUM and Bates took turns talking at the box for half an hour. Then the young man nodded, laughed, clapped his hands again, and the two men carried it away. The crowd went with them, waving merrily as they departed.

Bates shrugged his shoulders and went back into the ship, with Farnum close behind.

A few hours after sunrise the



following morning, the crowd returned, as gay and carefree as before, led by the two young men who had carried the box. Each of these two now had a small case, about the size of a camera, slung by a strap across one brawny shoulder.

As the terrestrials climbed out to meet them, the two men raised their hands and the crowd discontinued its chatter, falling silent except for an occasional tinkle of surprised laughter.

"Welcome," said the first young man clearly. "It is a great pleasure for us to have our spaceport in use again. It has been many generations since any ships have landed on it."

Farnum noticed that the voice came from the box. "Thank you for your very kind welcome," he said. "I hope that your traffic will soon increase. May we congratulate you, by the way, on the efficiency of your translators?"

"Thanks," laughed the young man. "But there was nothing to it. We just asked the Oracle and he told us what we had to do to make them."

"May we meet your — Oracle?"

"Oh, sure, if you want to. But later on. Now it's time for a party. Why don't you take off those clumsy suits and come along?"

"We don't dare remove our spacesuits. They protect us from any disease germs you may have, and you from any we may have. We probably have no resistance to each others' ailments."

"The Oracle says we have nothing that will hurt you. And we're going to spray you with this as soon as you get out of your suits. Then you won't hurt any of us." He held up a small atomizer.

Farnum glanced at Bates, who shrugged and nodded. They uneasily unfastened their spacesuits and stepped out of them, wearing only their light one-piece coveralls, and got sprayed with a pleasant-smelling mist.

The party was a great success. The food was varied and delicious. The liquors were sparkling and stimulating, without unpleasant after-effects. The women were uninhibited.

When a native got tired, he just dropped down onto the soft grass, or onto an even softer couch, and went to sleep. The Earthmen finally did the same.

THEY awoke the following morning within minutes of each other, feeling comfortable and relaxed. Bates shook his head experimentally. "No hangover," he muttered in surprise.

"No one ever feels bad after a party," said one of their guides, who had slept nearby. "The Oracle told us what to do, when we asked him."

"Quite a fellow, your Oracle,"

commented Bates. "Does he answer you in riddles, like most Oracles?"

The guide was shocked. "The Oracle answers any questions promptly and completely. He *never* talks in riddles."

"Can we go to see him now?" asked Farnum.

"Certainly. Come along. I'll take you to the Hall of the Oracle."

The Oracle appeared to live in a building of modest size, in the center of a tremendous courtyard. The structure that surrounded the courtyard, in contrast, was enormous and elaborate, dominating the wildly architectured city. It was, however, empty.

"Scholars used to live in this building, they tell me," said one of their guides, gesturing casually. "They used to come here to learn from the Oracle. But there's no sense in learning a lot of stuff when the Oracle has always got all the answers anyway. So now the building is empty. The big palace was built back in the days when we used to travel among the stars, as you do now."

"How long ago was that?" asked Farnum.

"Oh, I don't know. A few thousand years — a few hundred years — the Oracle can tell you if you really want to know."

Bates raised an eyebrow. "And how do you know you'll always be given the straight dope?"

The guide looked indignant. "The Oracle *always* tells the truth."

"Yes," Bates persisted, "but how do you *know?*"

"The Oracle told us so, of course. Now why don't you go in and find out for yourselves? We'll wait out here. We don't have anything to ask him."

BATES and Farnum went into the building and found themselves in a small, pleasant room furnished with comfortable chairs and sofas.

"Good morning," said a well-modulated voice. "I have been expecting you."

"You are the Oracle?" asked Farnum, looking around curiously.

"The name that the people of this planet have given me translates most accurately as 'Oracle'," said the voice.

"But are you actually an Oracle?"

"My principal function, insofar as human beings — that is, *Homo sapiens* — are concerned, is to give accurate answers to all questions propounded me. Therefore, insofar as humans are concerned, I am actually an Oracle."

"Then you have another function?"

"My principal function, insofar as the race that made me is concerned, is to act as a weapon."

"Oh, said Bates. "Then you are a machine?"

"I am a machine," agreed the voice.

"The people who brought us here said that you always tell them the truth. I suppose that applies when you are acting as an Oracle, instead of as a weapon?"

"On the contrary," said the voice blandly. "I function as a weapon by telling the truth."

"That doesn't make sense," protested Bates.

The machine paused for a moment before replying. "This will take a little time, gentlemen," it said, "but I am sure that I can convince you. Why don't you sit down and be comfortable? If you want refreshments, just ask for them."

"Might as well," said Bates, sitting down in an easy chair. "How about giving us some Korite God-food?"

"If you really want that bad a brew of coffee, I can make it for you, of course," said the voice, "but I am sure you would prefer some of better quality."

Farnum laughed. "Yes, please. Some good coffee, if you don't mind."

"NOW," said the Oracle, after excellent coffee had been produced, "it is necessary for me to go back into history a few hundred thousand of your years. At that time, the people who made me entered this galaxy on one of their periodic visits of routine exploration, and contacted your ancestors. The race that constructed me populates now, as it did then, the Greater Magellanic Cloud.

"Frankly, the Magellanic race was appalled at what they found. In the time since their preceding visit, your race had risen from the slime of your mother planet and was on its way toward stars. The speed of your development was unprecedented in millions of years of history. By their standards, your race was incredibly energetic, incredibly fecund, incredibly intelligent, unbelievably warlike, and almost completely depraved.

"Extrapolation revealed that within another fifty thousand of your years, you would complete the population of this galaxy and would be totally unstoppable.

"Something had to be done, fast. There were two obvious solutions but both were unacceptable to my Makers. The first was to assume direct control over your race and to maintain that rule indefinitely, until such time as you changed your natures sufficiently to become civilizable. The expenditure of energy would be enormous and the results probably catastrophic to your race. No truly civilized people could long contemplate such a solution.

"The second obvious answer was to attempt to extirpate you from this universe as if you were

a disease—as, in a sense, you are. Because your depravity was not total or necessarily permanent, this solution was also abhorrent to my Makers and was rejected.

"What was needed was a weapon that would keep operating without direct control by my People, which would not result in any greater destruction or harm to humans than was absolutely necessary; and one which would cease entirely to operate against you if you changed sufficiently to become civilizable—to become good neighbors to my Makers.

"The final solution of the Magellanic race was to construct several thousand spaceships, each containing an elaborate computer, constructed so as to give accurate answers throughout your galaxy. I am one of those ships. We have performed our function in a satisfactory manner and will continue to do so as long as we are needed."

"And that makes you a weapon?" asked Bates incredulously. "I don't get it."

FARNUM felt a shiver go through him. "I see it. The concept is completely diabolical."

"It's not diabolical at all," answered the Oracle. "When you become capable of civilization, we can do you no further harm at all. We will cease to be a weapon at that time."

"You mean you'll stop telling the truth at that time?" asked Bates.

"We will continue to function in accordance with our design," answered the voice, "but it will no longer do you harm. Incidentally, your phrase 'telling the truth' is almost meaningless. We answer all questions in the manner most completely understandable to you, within the framework of your language and your understanding, and of the understanding and knowledge of our Makers. In the objective sense, what we answer is not necessarily the Truth; it is merely the truest form of the answer that we can state in a manner that you can understand."

"And you'll answer any question at all?" asked Bates in some excitement.

"With one or two exceptions. We will not, for example, tell you how we may be destroyed."

Bates stood up and began pacing the floor. "Then whoever possesses you can be the most powerful man in the Universe!"

"No. Only in this galaxy."

"That's good enough for me!"

"Jack," said Farnum urgently, "let's get out of here. I want to talk to you."

"In a minute, in a minute," said Bates impatiently. "I've got one more question." He turned to face the wall from which the disembodied voice appeared to emanate. "Is it possible to arrange

it so that you would answer only one man's questions — mine, for example?"

"I can tell you how to arrange it so that I will respond to only your questions—for so long as you are alive."

"Come on," pleaded Farnum. "I've got to talk to you right now."

"Okay," said Bates, smiling. "Let's go."

WHEN they were back in their ship, Farnum turned desperately to Bates. "Can't you see what a deadly danger that machine is to us all? We've got to warn Earth as fast as we can and get them to quarantine this planet — and any other planets we find that have Oracles."

"Oh, no, you don't," said Bates. "You aren't getting the chance to have the Oracle all to yourself. With that machine, we can rule the whole galaxy. We'll be the most powerful people who ever lived! It's sure lucky for us that you won the toss of the coin and we stopped here."

"But don't you see that the Oracle will destroy Earth?"

"Bushwah. You heard it say it can only destroy people who aren't civilized. It said that it's a spaceship, so I'll bet we can get it to come back to Earth with us, and tell us how we can be the only ones who can use it."

"We've got to leave here right away—without asking it any more questions."

Bates shook his head. "Quit clowning."

"I never meant anything more in my life. Once we start using that machine—if we ask it even one question to gain advantage for ourselves — Earth's civilization is doomed. Can't you see that's what happened to those other planets we visited? Can't you see what is happening to this planet we're on now?"

"No, I can't," answered Bates stubbornly. "The Oracle said there are only a few thousand like him. You could travel through space for hundreds of years and never be lucky enough to find one. There can't be an Oracle on every planet we visited."

"There wouldn't have to be," said Farnum. "There must be hundreds of possible patterns — all of them destructive in the presence of greed and laziness and lust for power. For example, a planet—maybe this one — gets space travel. It sets up colonies on several worlds. It's expanding and dynamic. Then it finds an Oracle and takes it back to its own world. With all questions answered for it, the civilization stops being dynamic and starts to stagnate. It stops visiting its colonies and they drift toward barbarism.

"Later," Farnum went on urgently, "somebody else reaches the

stars, finds the planet with the Oracle — and takes the thing back home. Can you imagine what will happen to these people on this world if they lose their Oracle? Their own learning and traditions and way of life have been destroyed — just take a look at their anarchic clothing and architecture. The Oracle is the only thing that keeps them going — downhill — and makes sure they don't start back again."

"It won't happen that way to us," Bates argued. "We won't let the Oracle get into general use, so Earth won't ever learn to depend on it. I'm going to find out from it how to make it work for the two of us alone. You can come along and share the gravy or not, as you choose. I don't care. But you aren't going to stop me."

Bates turned and strode out of the ship.

FARNUM pounded his fist into his palm in despair, and then ran to a locker. Taking out a high-power express rifle, he loaded it carefully and stepped out through the airlock. Bates showed clearly in his telescopic sights, still walking toward the Hall of the Oracle. Farnum fired at the legs, but he wasn't that good a shot; the bullet went through the back.

Farnum jittered between bringing Bates back and taking off as fast as the ship could go. The body still lay there, motionless; there was nothing he could do for the Oracle's first Earth victim — the first and the last, he swore grimly. He had to speed home and make them understand the danger before they found another planet with an Oracle, so that they could keep clear of its deadly temptatoins. The Magellanic race could be outwitted yet, in spite of their lethal cleverness.

Then he felt a sudden icy chill along his spine. Alone, he could never operate the spaceship — and Bates was dead. He was trapped on the planet.

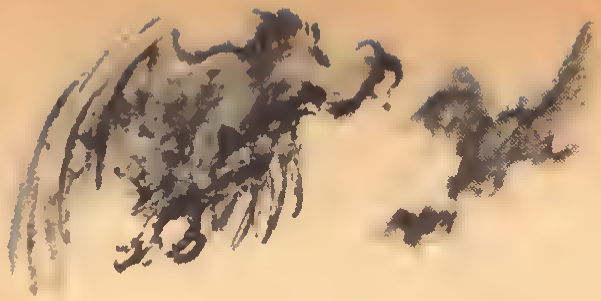
For hours, he tried to think of some way of warning Earth. It was imperative that he get back. There had to be a way.

He realized finally that there was only one solution to his problem. He sighed shudderingly and walked slowly from the spaceship toward the Hall of the Oracle, past Bates' body.

"One question, though," he muttered to himself. "Only one."

— L. J. STECHER, JR.

★ ★ ★ ★ ★



THE MINIMUM MAN

By ROBERT SHECKLEY

Perceveral had a nerve asking for nothing more than his own small cubicle and a bit to eat! He'd take the whole world or else!

Illustrated by DICK FRANCIS



EVERYBODY has his song, thought Anton Perceveral. A pretty girl is like a melody, and a brave spaceman like a flurry of trumpets. Wise old men on the Interplanetary Council make one think of richly blended woodwinds. There are geniuses whose lives are an intricate counterpoint endlessly embellished, and scum of the planets whose existence seems nothing more than the wail of an oboe against the inexorable pounding of a brass drum.

Perceval thought about this, loosely gripping a razor blade and contemplating the faint blue veins in his wrist.

For if everybody has his song, his could be likened to a poorly conceived and miserably executed symphony of errors.

There had been muted horns of gladness at his birth. Bravely, to the sound of muffled drums, young Perceval had ventured into school. He had excelled and been promoted to a small workshop class of five hundred pupils, where he could receive a measure of individual attention. The future had looked promising.

But he was congenitally unlucky. There was a constant series of small accidents with overturned inkwells, lost books and misplaced papers. Things had a damnable propensity for breaking under his fingers; or sometimes his fingers broke under things. To make matters worse, he caught every possible childhood disease, including proto-Measles, Algerian Mumps, Impetigo, Foxpox, Green Fever and Orange Fever.

These things in no way reflected upon Perceval's native ability; but one needs more than ability in a crowded and competitive world. One needs considerable luck, and Perceval had none. He was transferred to an ordinary class of ten thousand students, where his problems were intensified and his opportunities for catching disease expanded.

HE was a tall, thin, bespectacled, good-hearted, hard-working young man whom the doctors early diagnosed as accident-prone, for reasons which defied their analysis. But whatever the reasons, the facts remained. Perceveral was one of those unhappy people for whom life is difficult to the point of impossibility.

Most people slip through the jungle of human existence with the facility of prowling panthers. But, for the Perceverals, the jungle is continually beset with traps, snares and devices, sudden precipices and unfordable streams, deadly fungus and deadlier beasts. No way is safe. All roads lead to disaster.

Young Perceveral won his way through college in spite of his remarkable talent for breaking his leg on winding staircases, twisting his ankle on curbstones, fracturing his elbow in revolving doors, smashing his glasses against plate-glass windows, and all the rest of the sad, ludicrous, painful events which beset the accident-prone. Manfully he resisted the solace of hypochondria and kept trying.

Upon graduation from college, Perceveral took himself firmly in hand and tried to reassert the early clear theme of hope set by his stalwart father and gentle mother. With a ruffle of drums and a thrilling of chords, Perceveral entered the island of Manhattan, to forge his destiny. He worked hard to conquer his unhappy predisposition, and to stay cheerful and optimistic in spite of everything.

But his predisposition caught up with him. The noble chords dis-

solved into vague mutterings, and the symphony of his life degenerated to the level of opera-bouffé. Perceveral lost job after job in a snarl of broken voxwriters and smeared contracts, forgotten file cards and misplaced data sheets; in a mounting crescendo of ribs wrenched in the subway rush, ankles sprained on gratings, glasses smashed against unseen projections, and in a bout of illnesses which included Hepatitis Type J, Martian Flu, Venusian Flu, Waking Sickness and Giggling Fever.

Perceveral still resisted the lure of hypochondria. He dreamed of space, of the iron-jawed adventurers advancing Man's frontier, of the new settlements on distant planets, of vast expanses of open land where, far from the hectic plastic jungles of Earth, a man could really find himself. He applied to the Planetary Exploration & Settlement Board, and was turned down. Reluctantly he pushed the dream aside and tried a variety of jobs. He underwent Analysis, Hypnotic Suggestion, Hypnotic Hypersuggestion and Countersuggestion Removal — all to no avail.

Every man has his limits and every symphony has its end. Perceveral gave up hope at the age of thirty-four when he was fired, after three days, from a job he had sought for two months. That, as far as he was concerned, provided the final humorous off-key cymbal clash to something which probably shouldn't have been started in the first place.

GRIMLY he took his meager paycheck, accepted a last wary handshake from his former employer, and rode the elevator to the lobby. Already vague thoughts of suicide were crossing his mind in the form of truck wheels, gas pipes, tall buildings and swift rivers.

The elevator reached the great marble lobby with its uniformed riot policemen and its crowds waiting admittance to the midtown streets. Perceveral waited on line, idly watching the Population Density Meter fluctuate below the panic line, until his turn came. Outside, he joined a compact body of people moving westward in the direction of his housing project.

Suicidal thoughts continued to flow through his mind, more slowly now, taking more definite forms. He considered methods and means until he reached home. There he disengaged himself from the crowd and slipped in through an entry port.

He struggled against a flood of children pouring through corridors, and reached his city-provided cubicle. He entered, closed and locked the door, and took a razor blade from his shaving kit. He lay down on the bed, propping his

feet against the opposite wall, and contemplated the faint blue veins of his wrist.

Could he do it? Could he do it cleanly and quickly, without error and without regret? Or would he bungle this job, too, and be dragged screaming to a hospital, a ludicrous sight for the interns to snicker about?

As he was thinking, a yellow envelope was slipped under his door. It was a telegram, arriving pat on the hour of decision, with a melodramatic suddenness which Perceveral considered quite suspect. Still, he put down the razor blade and picked up the envelope.

It was from the Planetary Exploration & Settlement Board, the great organization that controlled every Earthman's movements in space. With trembling fingers, Perceveral opened the envelope and read:

Mr. Anton Perceveral
Temporary Housing Project 1993
District 43825, Manhattan 212, N.Y.
Dear Mr. Perceveral:

Three years ago you applied to us for a position in any off-Earth capacity. Regretfully we had to turn you down at that time. Your records have been kept on file, however, and have recently been brought up to date. I am happy to inform you that a position is immediately available for you, one which I consider well suited to your particular talents and qualifications. I believe this job will meet with your approval, carrying, as it does, a salary of $20,000 a year, all government fringe benefits, and an unexcelled opportunity for advancement.

Could you come in and discuss it with me?

Sincerely,
William Haskell
Asst. Placement Director
WH/ibm3dc

Perceveral folded the telegram carefully and put it back in its envelope. His first feeling of intense joy vanished, to be replaced by a sense of apprehension.

What talents and qualifications did he have for a job commanding twenty thousand a year and benefits? Could they be confusing him with a different Anton Perceveral?

It seemed unlikely. The Board just didn't do that sort of thing. And presuming that they knew him and his ill-starred past—what could they possibly want from him? What could *he* do that practically any man, woman or child couldn't do better?

Perceveral put the telegram in his pocket and replaced the razor blade in his shaving kit. Suicide seemed a little premature now. First he would find out what Haskell wanted.

AT the headquarters of the Planetary Exploration & Settlement Board, Perceveral was admitted at once to William Has-

kell's private office. The Assistant Placement Director was a large, blunt-featured, white-haired man who radiated a geniality which Perceveral found suspicious.

"Sit down, sit down, Mr. Perceveral," Haskell said. "Cigarette? Care for a drink? Awfully glad you could make it."

"Are you sure you have the right man?" Perceveral asked.

Haskell glanced through a dossier on his desk. "Let's see. Anton Perceveral; age thirty-four; parents, Gregory James Perceveral and Anita Swaans Perceveral, Laketown, New Jersey. Is that right?"

"Yes," Perceveral said. "And you have a job for me?"

"We have indeed."

"Paying twenty thousand a year and benefits?"

"Perfectly correct."

"Could you tell me what the job is?"

"That's what we're here for," Haskell said cheerfully. "The job I have in mind for you, Mr. Perceveral, is listed in our catalogue as Extraterrestrial Explorer."

"I beg your pardon?"

"Extraterrestrial or alien-planet explorer," Haskell said. "The explorers, you know, are the men who make the first contacts on alien planets, the primary settlers who gather our essential data. I think of them as the Drakes and Magellans of this century. It is, I think you'll agree, an excellent opportunity."

Perceveral stood up, his face a dull red. "If you're finished with the joke, I'll leave."

"Eh?"

"Me an extraterrestrial explorer?" Perceveral said with a bitter laugh. "Don't try to kid me. I read the papers. I know what the explorers are like."

"What are they like?"

"They're Earth's finest," Perceveral said. "The very best brains in the very best bodies. Men with trigger-quick reactions, able to tackle any problems, cope with any situation, adjust to any environment. Isn't that true?"

"Well," Haskell said, "it *was* true back in the early days of planetary exploration. And we have allowed that stereotype to remain in the public eye, to instill confidence. But that type of explorer is now obsolete. There are plenty of other jobs for men such as you describe. But not planetary exploration."

"COULDN'T your supermen make the grade?" Perceveral asked with a faint sneer.

"Of course they could," Haskell said. "No paradox is involved here. The record of our early explorers is unsurpassed. Those men managed to survive on every planet where human survival was even remotely possible, against over-

whelming odds, by sheer grit and tenacity. The planets called for their every resource and they rose to meet the challenge. They stand as an eternal monument to the toughness and adaptability of *Homo sapiens.*"

"Then why did you stop using them?"

"Because our problems on Earth changed," Haskell told him. "In the early days, the exploration of space was an adventure, a scientific achievement, a defense measure, a symbol. But that passed. Earth's overpopulation trend continued — explosively. Millions spilled into relatively empty lands like Brazil, New Guinea and Australia. But the population explosion quickly filled them. In major cities, the population-panic-point was reached and produced the Weekend Riots. And the population, bolstered by geriatrics and a further sharp decrease in infant mortality, continued to grow."

Haskell rubbed his forehead. "It was a mess. But the ethics of population increase aren't my business. All we at the Board knew was, we had to have new land fast. We needed planets which— unlike Mars and Venus — would be rapidly self-supporting. Places to which we could siphon millions, while the scientists and politicians on Earth tried to straighten things out. We had to open these planets to colonization as rapidly as possible. And that meant speeding up the initial exploratory process."

"I know all that," Perceveral said. "But I still don't see why you stopped using the optimum explorer type."

"Isn't it obvious? We were looking for places where o*rdinary* people could settle and survive. Our optimum explorer type was not ordinary. Quite the contrary, he almost approximated a new species. And he was no judge of o*rdinary* survival conditions. For example, there are bleak, dreary, rain-swept little planets that the average colonist finds depressing to the point of insanity; but our optimum explorer is too sound to be disturbed by climatic monotony. Germs which devastate thousands give him, at most, a bad time for a while. Dangers which can push a colony to the brink of disaster, our optimum explorer simply evades. He can't assess these things in everyday terms. They simply don't touch him."

"I'm beginning to see," Perceveral said.

"Now the best way," Haskell said, "would have been to attack these planets in stages. First an explorer, then a basic research team, then a trial colony composed largely of psychologists and sociologists, then a research group to interpret the findings of the other groups, and so forth. But there's never enough time or money for

all that. We need those colonies right now, not in fifty years."

MR. Haskell paused and looked hard at Perceveral. "So, you see, we must have *immediate knowledge* as to whether a group of ordinary people could live and thrive on any new planet. That's why we changed our qualifications for explorers."

Perceveral nodded. "Ordinary explorers for ordinary people. There's just one thing, however."

"Yes?"

"I don't know how well you know my background . . ."

"Quite well," Haskell assured him.

"Then you might have noticed that I have certain tendencies toward — well, a certain accident-proneness. To tell you the honest truth, I have a hard time surviving right here on Earth."

"I know," Mr. Haskell said pleasantly.

"Then how would I make out on an alien planet? And why would you want me?"

Mr. Haskell looked slightly ill at ease. "Well, you stated our position wrongly when you said 'ordinary explorers for ordinary people.' It isn't that simple. A colony is composed of thousands, often millions of people, who vary considerably in their survival potentialities. Humanity and the law state that all of them must have a fighting chance. The people themselves must be reassured before they'll leave Earth. We must convince them — and the law — and ourselves—that even the weakest will have a chance for survival."

"Go on," Perceveral said.

"Therefore," Haskell said quickly, "some years ago we stopped using the optimum-survival explorer, and began using the minimum-survival explorer."

Perceveral sat for a while digesting this information. "So you want me because any place *I* can live in, *anyone* can live in."

"That more or less sums up our thinking on the problem," Haskell said, smiling genially.

"But what would *my* chances be?"

"Some of our minimum-survival explorers have done very well."

"And others?"

"There are hazards, of course," Haskell admitted. "And aside from the potential dangers of the planet itself, there are other risks involved in the very nature of the experiment. I can't even tell you what they are, since that would destroy our only control element on the minimum-survival test. I simply tell you that they are present."

"Not a very good outlook," Perceveral said.

"Perhaps not. But think of the rewards if you won through! You would, in effect, be the founding

father of a colony! Your value as an expert would be immeasurable. You would have a permanent place in the life of the community. And equally important, you might be able to dispel certain insidious self-doubts concerning your place in the scheme of things."

Perceveral nodded reluctantly. "Tell me one thing. Your telegram arrived today at a particularly crucial moment. It seemed almost—"

"Yes, it was planned," Haskell said. "We've found that the people we want are most receptive when they've reached a certain psychological state. We keep close watch over the few who fit our requirements, waiting for the right moment to make our presentation."

"It might have been embarrassing if you'd been an hour later," Perceveral said.

"Or unfruitful if we'd been a day earlier." Haskell arose from behind his desk. "Would you join me for lunch, Mr. Perceveral? We can discuss final details over a bottle of wine."

"All right," Perceveral said. "But I'm not making any promises yet."

"Of course not," Haskell said, opening the door for him.

AFTER lunch, Perceveral did some hard thinking. The explorer's job appealed to him strongly in spite of the risks. It was, after all, no more dangerous than suicide, and much better paying. The rewards were great if he won; the penalty for failure was no more than the price he had been about to pay for failure on Earth.

He hadn't done well in thirty-four years on Earth. The best he had shown were flashes of ability marred by a strong affinity for illness, accident and blunder. But Earth was crowded, cluttered and confused. Perhaps his accident-proneness had been not some structural flaw in him but the product of intolerable conditions.

Exploration would give him a new environment. He would be alone, dependent only on himself, answerable only to himself. It would be tremendously dangerous — but what could be more dangerous than a glittering razor blade held in his own hand?

This would be the supreme effort of his life, the ultimate test. He would fight as he had never fought before to conquer his fatal tendencies. And this time he would throw every ounce of strength and determination into the struggle.

He accepted the job. In the next weeks of preparation, he ate and drank and slept determination, hammered it into his brain and wove it between his nerves, mumbled it to himself like a Buddhist prayer, dreamed about it, brushed his teeth and washed his hands

with it, meditated upon it until the monotonous refrain buzzed in his head waking and sleeping, and began slowly to act as a check and restraint upon action.

The day arrived when he was assigned a year's tour of duty upon a promising planet in the East Star Ridge. Haskell wished him luck and promised to stay in touch by L-phase radio. Perceveral and his equipment were put aboard the picket ship *Queen of Glasgow,* and the adventure was begun.

During the months in space, Perceveral continued to think obsessively of his resolve. He handled himself carefully in no-weight, watched his every movement and cross-checked his every motive. This continuous inspection slowed him down considerably; but gradually it became habitual. A set of new reflexes began to form, struggling to conquer the old reflex system.

But progress was spasmodic. In spite of his efforts, Perceveral caught a minor skin irritation from the ship's purification system, broke one of his ten pairs of glasses against a bulkhead, and suffered numerous headaches, backaches, skinned knuckles and stubbed toes.

Still, he felt he had made progress, and his resolution hardened accordingly. And at last his planet came into view.

THE planet was named Theta. Perceveral and his equipment were set down on a grassy, forested upland near a mountain range. The area had been pre-selected by air survey for its promising qualities. Water, wood, local fruits and mineral-bearing ores were all nearby. The area could make an excellent colony site.

The ship's officers wished him luck, and departed. Perceveral watched until the ship vanished into a bank of clouds. Then he went to work.

First he activated his robot. It was a tall, gleaming, black multipurpose machine, standard equipment for explorers and settlers. It couldn't talk, sing, recite or play cards like the more expensive models. Its only response was a headshake or a nod; dull companionship for the year ahead. But it was programmed to handle verbal work-commands of a considerable degree of complexity, to perform the heaviest labor, and to show a degree of foresight in problem situations.

With the robot's help, Perceveral set up his camp on the plain, keeping a careful check on the horizon for signs of trouble. The air survey had detected no signs of an alien culture, but you could never tell. And the nature of Theta's animal life was still uninvestigated.

He worked slowly and carefully,

and the silent robot worked beside him. By evening, he had set up a temporary camp. He activated the radar alarm and went to bed.

He awoke just after dawn to the shrilling of the radar alarm bell. He dressed and hurried outside. There was an angry humming in the air, like the sound of a locust horde.

"Get two beamers," he told the robot, "and hurry back. Bring the binoculars, too."

The robot nodded and lurched off. Perceveral turned slowly, shivering in the gray dawn, trying to locate the direction of the sound. He scanned the damp plain, the green edge of forest, the cliffs beyond. Nothing moved. Then he saw, outlined against the sunrise, something that looked like a low dark cloud. The cloud was flying toward his camp, moving very quickly against the wind.

The robot returned with the beamers. Perceveral took one and directed the robot to hold the other, awaiting orders to fire. The robot nodded, his eyecells gleaming dully as he turned toward the sunrise.

WHEN the cloud swept nearer, it resolved into a gigantic flock of birds. Perceveral studied them through his binoculars. They were about the size of Terran hawks, but their darting, erratic flight resembled the flight of bats. They were heavily taloned and their long beaks were edged with sharp teeth. With all that lethal armament, they had to be carnivorous.

The flock circled them, humming loudly. Then, from all directions, with wings swept back and talons spread, they began to dive. Perceveral directed the robot to begin firing.

He and the robot stood back to back, blasting into the onslaught of birds. There was a whirling confusion of blood and feathers as battalions of birds were scythed out of the sky. Perceveral and the robot were holding their own, keeping the aerial wolf pack at a distance, even beating it back. Then Perceveral's beamer failed.

The beamers were supposed to be fully charged and guaranteed for seventy-five hours at full automatic. A beamer couldn't fail! He stood for a moment, stupidly clicking the trigger. Then he flung down the weapon and hurried to the supplies tent, leaving the robot to continue the fight alone.

He located his two spares and came out. When he rejoined the battle, he saw that the robot's beamer had stopped functioning. The robot stood erect, beating off the swarm of birds with his arms. Drops of oil sprayed from his joints as he flailed at the dense flock. He swayed, dangerously

close to losing his balance, and Perceveral saw that some birds had evaded his swinging arms and were perched on his shoulders, pecking at his eyecells and kinesthetic antenna.

Perceveral swung up both beamers and began to cut into the swarm. One weapon failed almost immediately. He continued chopping with the last, praying it would retain its charge.

The flock, finally alarmed by its losses, rose and wheeled away, screaming and hooting. Miraculously unhurt, Perceveral and the robot stood knee-deep in scattered feathers and charred bodies.

Perceveral looked at the four beamers, three of which had failed him entirely. Then he marched angrily to the communications tent.

HE contacted Haskell and told him about the attack of the birds and the failure of three beamers out of four. Red-faced with outrage, he denounced the men who were supposed to check an explorer's equipment. Then, out of breath, he waited for Haskell's apology and explanation.

"That," Haskell said, "was one of the control elements."

"Huh?"

"I explained it to you months ago," Haskell said. "We are testing for minimum-survival conditions. *Minimum*, remember? We have to know what will happen to a colony composed of people of varying degrees of proficiency. Therefore, we look for the lowest denominator."

"I know all that. But the beamers—"

"Mr. Perceveral, setting up a colony, even on an absolute minimum basis, is a fantastically expensive operation. We supply our colonists with the newest and best in guns and equipment, but we can't replace things that stop functioning or are used up. The colonists have to use irreplaceable ammunition, equipment that breaks and wears out, food stores that become exhausted or spoiled—"

"And that's what you've given me?" Perceveral asked.

"Of course. As a control, we have equipped you with the minimum of survival equipment. That's the only way we'll be able to predict how the colonists will make out on Theta."

"But it isn't fair! Explorers always get the best equipment!"

"No," Haskell said. "The old-style optimum-survival explorers did, of course. But we're testing for least potential, which must extend to equipment as well as to personality. I told you there would be risks."

"Yes, you did," Perceveral said. "But . . . All right. Do you have any other little secrets in store for me?"

"Not really," Haskell said, after a momentary pause. "Both you and your equipment are of minimum-survival quality. That about sums it up."

Perceveral detected something evasive in this answer, but Haskell refused to be more specfiic. They signed off and Perceveral returned to the chaos of his camp.

PERCEVERAL and the robot moved their camp to the shelter of the forest for protection against further assaults by the birds. In setting up again, Perceveral noted that fully half of his ropes were badly worn, his electrical fixtures were beginning to burn out, and the canvas of his tents showed mildew. Laboriously he repaired everything, bruising his knuckles and skinning his palms. Then his generator broke down.

He sweated over it for three days, trying to figure out the trouble from the badly printed instruction book, written in German, that had been sent with the machine. Nothing seemed to be set up right in the generator and nothing worked. At last he discovered, by pure accident, that the book was meant for an entirely different model. He lost his temper at this and kicked the generator, almost breaking the little toe of his right foot.

Then he took himself firmly in hand and worked for another four days, figuring out the differences between his model and the model described, until he had the generator working again.

The birds found that they could plummet through the trees into Perceveral's camp, snatch food and be gone before the beamer could be leveled at them. Their attacks cost Perceveral a pair of glasses and a nasty wound on the neck. Laboriously he wove nets, and, with the robot's help, strung them in the branches above his camp.

The birds were baffled. Perceveral finally had time to check his food stores, and to discover that many of his dehydrated staples had been poorly processed, and others had become a host to an ugly airborne fungus. Either way, it added up to spoilage. Unless he took measures now, he would be short of food during the Thetan winter.

He ran a series of tests on local fruits, grains, berries and vegetables. They showed several varieties to be safe and nourishing. He ate these, and broke into a spectacular allergy rash. Painstaking work with his medical kit gave him a cure for the allergy, and he set up a test to discover the guilty plant. But just as he was checking final results, the robot stamped in, upsetting test tubes and spilling irreplaceable chemicals.

Perceveral had to continue the allergy tests on himself, and to

exclude one berry and two vegetables as unfit for his consumption.

But the fruits were excellent and the local grains made a fine bread. Perceveral collected seed, and, late in the Thetan spring, directed the robot to the tasks of plowing and planting.

THE robot worked tirelessly in the new fields, while Perceveral did some exploring. He found pieces of smooth rock upon which characters had been scratched, and what looked like numbers, and even little stick-pictures of trees and clouds and mountains. Intelligent beings must have lived on Theta, he decided. Quite probably they still inhabited some parts of the planet. But he had no time to search for them.

When Perceveral checked his fields, he found that the robot had planted the seed inches too deep, in spite of his programmed instructions. That crop was lost, and Perceveral planted the next by himself.

He built a wooden shack and replaced the rotting tents with storage sheds. Slowly he made his preparations for survival through the winter. And slowly he began to suspect that his robot was wearing out.

The great black all-purpose machine performed its tasks as before. But the robot's movements were growing increasingly jerky and his use of strength was indiscriminate. Heavy jars splintered in his grip and farming implements broke when he used them. Perceveral programmed him for weeding the fields, but the robot's broad splay feet trampled the grain sprouts as his fingers plucked the weeds. When the robot went out to chop firewood, he usually succeeded in breaking the axe handle. The cabin shook when the robot entered, and the door sometimes left its hinges.

Perceveral wondered and worried about the robot's deterioration. There was no way he could repair it, for the robot was a factory-sealed unit, meant to be repaired only by factory technicians with special tools, parts and knowledge. All Perceveral could do was retire the robot from service. But that would leave him completely alone.

HE programmed increasingly simple tasks into the robot and took more work upon himself. Still the robot continued to deteriorate. Then one evening, when Perceveral was eating his dinner, the robot lurched against the stove and sent a pot of boiling rice flying.

With his new-found survival talents, Perceveral flung himself out of the way and the boiling mess landed on his left shoulder instead of his face.

That was too much. The robot was dangerous to have around. After dressing his burn, Perceveral decided to turn the robot off and continue the work of survival alone. In a firm voice, he gave the Dormancy Command.

The robot simply glared at him and moved restlessly around the cabin, not responding to a robot's most basic command.

Perceveral gave the order again. The robot shook his head and began to stack firewood.

Something had gone wrong. He would have to turn the robot off manually. But there was no sign of the usual cut-out switch anywhere on the machine's gleaming black surface. Nevertheless, Perceveral took out his tool kit and approached the robot.

Amazingly, the robot backed away from him, arms raised defensively.

"Stand still!" Perceveral shouted.

The robot moved away until his back was against the wall.

Perceveral hesitated, wondering what was going wrong. Machines weren't permitted to disobey orders. And the willingness to give up life had been carefully structured into all robotic devices.

He advanced on the robot, determined to turn him off somehow. The robot waited until he was close, then swung an armored fist at him. Perceveral dodged out of the way and flung a wrench at the robot's kinesthetic antenna. The robot quickly retracted it and swung again. This time his armored fist caught Perceveral in the ribs.

Perceveral fell to the floor and the robot stood over him, his eye-cells flaring red and his iron fingers opening and closing. Perceveral shut his eyes and waited for the *coup de grace*. But the machine turned and left the shack, smashing the lock as he went.

In a few minutes, Perceveral heard the sound of firewood being cut and stacked — as usual.

With the aid of his medical kit, Perceveral taped up his side. The robot finished work and came back for further instructions. Shakily, Perceveral ordered him to a distant spring for water. The robot left, showing no further signs of aggression. Perceveral dragged himself to the radio shack.

"YOU shouldn't have tried to turn him off," Haskell said, when he heard what had happened. "He isn't designed to be turned off. Wasn't that apparent? For your own safety, don't try it again."

"But what's the reason?"

"Because — as you've probably guessed by now — the robot acts as our quality-control over you."

"I don't understand," Perceveral said. "Why do you need a quality-control?"

"Must I go through it all again?" Haskell asked wearily. "You were hired as a minimum-survival explorer. Not average. Not superior. *Minimum.*"

"Yes, but —"

"LET me continue. Do you recall how you were during your thirty-four years on Earth? You were continually beset by accident, disease and general misfortune. That is what we wanted on Theta. But you've changed, Mr. Perceveral."

"I've certainly *tried* to change."

"Of course," Haskell said. "We expected it. Most of our minimum-survival explorers change. Faced with a new environment and a fresh start, they get a grip on themselves such as they've never had before. But it's not what we're testing for, so we have to compensate for the change. Colonists, you see, don't always come to a planet in a spirit of self-improvement. And any colony has its careless ones, to say nothing of the aged, the infirm, the feeble-minded, the foolhardy, the inexperienced children, and so forth. Our minimum-survival standards are a guarantee that all of them will have a chance. Now are you beginning to understand?"

"I think so," Perceveral said.

"That's why we need a quality-control over you—to keep you from acquiring the average or superior survival qualities which we are *not* testing for."

"Therefore the robot," Perceveral said bleakly.

"Correct. The robot has been programmed to act as a check, a final control over your survival tendencies. He reacts to you, Perceveral. As long as you stay within a pre-selected range of general incompetence, the robot operates at par. But when you improve, become more skillful at survival, less accident-prone, the robot's behavior deteriorates. He begins to break the things that you should be breaking, to form the wrong decisions you should be forming—"

"That isn't fair!"

"Perceveral, you seem to feel that we're running some kind of sanitorium or self-aid program for your benefit. Well, we're not. We're interested only in getting the job that we bought and paid for. The job, let me add, which you chose as an alternative to suicide."

"All right!" Perceveral shouted. "I'm doing the job. But is there any rule that says I can't dismantle that damned robot?"

"No rule at all," Haskell said in a quieter voice, "if you can do it. But I earnestly advise you not to try. It's too dangerous. The robot will not allow himself to be deactivated."

"That's for me to decide, not him," Perceveral said, and signed off.

SPRING passed on Theta, and Perceveral learned how to live with his robot. He ordered him to scout a distant mountain range, but the robot refused to leave him. He tried giving him no orders, but the black monster wouldn't stay idle. If no work was assigned, the robot assigned work to himself, suddenly bursting into action and creating havoc in Perceveral's field and sheds.

In self-defense, Perceveral gave him the most harmless task he could think of. He ordered the robot to dig a well, hoping he would bury himself in it. But, grimy and triumphant, the robot emerged every evening and entered the cabin, showering dirt into Perceveral's food, transmitting allergies, and breaking dishware and windows.

Grimly, Perceveral accepted the status quo. The robot now seemed the embodiment of that other, darker side of himself, the inept and accident-prone Perceveral. Watching the robot on his destructive rounds, he felt as though he were watching a misshapen portion of himself, a sickness cast into solid, living form.

He tried to shake free of this fantasy. But more and more the robot came to represent his own destructive urges cut loose from the life impulse and allowed to run rampant.

Perceveral worked, and his neurosis stalked behind him, eternally destructive, yet — in the manner of neuroses — protective of itself. His self-perpetuating malady lived with him, watched him while he ate and stayed close while he slept.

Perceveral did his work and became increasingly competent at it. He took what enjoyment he could from the days, regretted the setting of the sun, and lived through the horror of the nights when the robot stood beside his bed and seemed to wonder if now were the time for a summing-up. And in the morning, still alive, Perceveral tried to think of ways of disposing of his staggering, lurching, destructive neurosis.

But the deadlock remained until a new factor appeared to complicate matters.

IT had rained heavily for several days. When the weather cleared, Perceveral walked out to his fields. The robot lumbered behind him, carrying the farming tools.

Suddenly a crack appeared in the moist ground under his feet. It widened, and the whole section he was standing on collapsed. Perceveral leaped for firm ground. He made it to the slope, and the robot pulled him up the rest of the way, almost yanking his arm from his socket.

When he examined the col-

lapsed section of field, he saw that a tunnel had run under it. Digging marks were still visible. One side was blocked by the fall. On the other side, the tunnel continued deep into the ground.

Perceveral went back for his beamer and his flashlight. He climbed down one side of the hole and flashed his light into the tunnel. He saw a great furry shape retreat hastily around a bend. It looked like a giant mole.

At last he had met another species of life on Theta.

For the next few days, he cautiously probed the tunnels. Several times he glimpsed gray molelike shapes, but they fled from him into a labyrinth of passageways.

He changed his tactics. He went only a few hundred feet into the main tunnel and left a gift of fruit. When he returned the next day, the fruit was gone. In its place were two lumps of lead.

The exchange of gifts continued for a week. Then, one day when Perceveral was bringing more fruit and berries, a giant mole appeared, approaching slowly and with evident nervousness. He motioned at Perceveral's flashlight, and Perceveral covered the lens so that it wouldn't hurt the mole's eyes.

He waited. The mole advanced slowly on two legs, his nose wrinkling, his small wrinkled hands clasped to his chest. He stopped and looked at Perceveral with bulging eyes. Then he bent down and scratched a symbol in the dirt of the passageway.

Perceveral had no idea what the symbol meant. But the act itself implied language, intelligence and a grasp of abstractions. He scratched a symbol beside the mole's, to imply the same things.

An act of communication between alien races had begun. The robot stood behind Perceveral, his eyecells glowing, watching while the man and the mole searched for something in common.

CONTACT meant more labor for Perceveral. The fields and gardens still had to be tended, the repairs on equipment made and the robot watched; in his spare time, Perceveral worked hard to learn the mole's language. And the moles worked equally hard to teach him.

Perceveral and the moles slowly grew to understand each other, to enjoy each other's company. to become friends. Perceveral learned about their daily lives, their abhorrence of the light, their journeys through the underground caverns, their quest for knowledge and enlightenment. And he taught them what he could about Man.

"But what is the metal thing?" the moles wanted to know.

"A servant of Man," Perceveral told them.



"But it stands behind you and glares. It hates you, the metal thing. Do all metal things hate men?"

"Certainly not," Perceveral said. "This is a special case."

"It frightens us. Do all metal things frighten?"

"Some do. Not all."

"And it is hard to think when the metal thing stares at us, hard to understand you. Is it always like that with metal things?"

"Sometimes they do interfere," Perceveral admitted. "But don't worry, the robot won't hurt you."

THE mole people weren't so sure. Perceveral made what excuses he could for the heavy, lurching, boorish machine, spoke of machinery's service to Man and the graciousness of life that it made possible. But the mole people weren't convinced and shrank from the robot's dismaying presence.

Nevertheless, after lengthy negotiations, Perceveral made a treaty with the mole people. In return for supplies of fresh fruits and berries, which the moles coveted but could rarely obtain, they agreed to locate metals for future colonists and find sources of water and oil. Furthermore, the colonists were granted possession of all the surface land of Theta and the moles were confirmed in their lordship of the underground.

This seemed an equitable distribution to both parties, and Perceveral and the mole chief signed the stone document with as much of a flourish as an incising tool would allow.

To seal the treaty, Perceveral gave a feast. He and the robot brought a great gift of assorted fruits and berries to the mole people. The gray-furred, soft-eyed moles clustered around, squeaking eagerly to each other.

The robot set down his baskets of fruit and stepped back. He slipped on a patch of smooth rock, flailed for balance, and came crashing down across one of the moles. Immediately he regained his balance and tried, with his clumsy iron hands, to help the mole up. But he had broken the creature's back.

The rest of the moles fled, carrying their dead companion with them. And Perceveral and the robot were left alone in the tunnel, surrounded by great piles of fruit.

That night, Perceveral thought long and hard. He was able to see the damnable logic of the event. Minimum-survival contacts with aliens should have an element of uncertainty, distrust, misunderstanding, and even a few deaths. His dealings with the mole people had gone altogether too smoothly for minimum requirements.

The robot had simply corrected the situation and had performed

the errors which Perceveral should have made on his own.

But although he understood the logic of the event, he couldn't accept it. The mole people were his friends and he had betrayed them. There could be no more trust between them, no hope of cooperation for future colonists. Not while the robot clumped and stumbled down the tunnels.

Perceveral decided that the robot must be destroyed. Once and for all, he determined to test his painfully acquired skill against the destructive neurosis that walked continually beside him. And if it cost his life — well, Perceveral reminded himself, he had been willing to lose it less than a year ago, for much poorer reasons.

HE re-established contact with the moles and discussed the problem with them. They agreed to help him, for even these gentle people had the concept of vengeance. They supplied some ideas which were surprisingly human, since the moles also possessed a form of warfare. They explained it to Perceveral and he agreed to try their way.

In a week, the moles were ready. Perceveral loaded the robot with baskets of fruit and led him into the tunnels, as though he were attempting another treaty.

The mole people weren't to be found. Perceveral and the robot journeyed deeper into the passageways, their flashlights probing ahead into the darkness. The robot's eyecells glowed red and he towered close behind Perceveral, almost at his back.

They came to an underground cavern. There was a faint whistle and Perceveral sprinted out of the way.

The robot sensed danger and tried to follow. But he stumbled, thwarted by his own programmed ineptness, and fruit scattered across the cavern floor. Then ropes dropped from the blackness of the cavern's roof and settled around the robot's head and shoulders.

He ripped at the tough fiber. More ropes settled around him, hissing in swift flight down from the roof. The robot's eyecells flared as he ripped the cords from his arms.

Mole people emerged from the passageways by the dozens. More lines snaked around the robot, whose joints spurted oil as he strained to break the strands. For minutes, the only sounds in the cavern were the hiss of flying ropes, the creak of the robot's joints, and the dry crack of breaking line.

PERCEVERAL ran back to join the fight. They bound the robot closer and closer until his limbs had no room to gain a purchase. And still the ropes hissed

through the air until the robot toppled over, bound in a great cocoon of rope with only his head and feet showing.

Then the mole people squeaked in triumph and tried to gouge out the robot's eyes with their blunt digging claws. But steel shutters slid over the robot's eyes. So they poured sand into his joints until Perceveral pushed them aside and attempted to melt the robot with his last beamer.

The beamer failed before the metal even grew hot. They fastened ropes to the robot's feet and dragged him down a passageway that ended in a deep chasm. They levered him over the side and listened while he bounced off the granite sides of the precipice, and cheered when he struck bottom.

The mole people held a celebration. But Perceveral felt sick. He returned to his shack and lay in bed for two days, telling himself over and over that he had not killed a man, or even a thinking being. He had simply destroyed a dangerous machine.

But he couldn't help remembering the silent companion who had stood with him against the birds, and had weeded his fields and gathered wood for him. Even though the robot had been clumsy and destructive, he had been clumsy and destructive in Perceveral's own personal way — a way that he, above all people, could understand and sympathize with.

For a while, he felt as though a part of himself had died. But the mole people came to him in the evenings and consoled him, and there was work to be done in the fields and sheds.

IT was autumn, time for harvesting and storing his crops. Perceveral went to work. With the robot's removal, his own chronic propensity for accident returned briefly. He fought it back with fresh confidence. By the first snows, his work of storage and food preservation was done. And his year on Theta was coming to an end.

He radioed a full report to Haskell on the planet's risks, promises and potentialities, reported his treaty with the mole people, and recommended the planet for colonization. In two weeks, Haskell radioed back.

"Good work," he told Perceveral. "The Board decided that Theta definitely fits our minimum-survival requirements. We're sending out a colony ship at once."

"Then the test is over?" Perceveral asked.

"Right. The ship should be there in about three months. I'll probably take this batch out. My congratulations, Mr. Perceveral. You're going to be the founding father of a brand-new colony!"

Perceveral said, "Mr. Haskell,

I don't know how to thank you—"

"Nothing to thank me for," Haskell said. "Quite the contrary. By the way, how did you make out with the robot?"

"I destroyed him," Perceveral said. He described the killing of the mole and the subsequent events.

"Hmm," Haskell said.

"You told me there was no rule against it."

"There isn't. The robot was part of your equipment, just like the beamers and tents and food supplies. Like them, he was also part of your survival problems. You had a right to do anything you could about him."

"Then what's wrong?"

"Well, I just hope you really destroyed him. Those quality-control models are built to last, you know. They've got self-repair units and a strong sense of self-preservation. It's damned hard to really knock one out."

"I think I succeeded," Perceveral said.

"I hope so. It would be embarrassing if the robot survived."

"Why? Would it come back for revenge?"

"Certainly not. A robot has no emotions."

"Well?"

"The trouble is this. The robot's purpose was to cancel out any gains you made in survival-quality. It did, in various destructive ways."

"Sure. So, if it comes back, I'll have to go through the whole business again."

"More. You've been separated from the robot for a few months now. If it's still functioning, it's been accumulating a backlog of accidents for you. All the destructive duties that it should have performed during those months — they'll all have to be discharged before the robot can return to normal duties. See what I mean?"

PERCEVERAL cleared his throat nervously. "And of course he would discharge them as quickly as possible in order to get back to regular operation."

"Of course. Now look, the ship will be there in about three months. That's the quickest we can make it. I suggest you make sure that robot is immobilized. We wouldn't want to lose you now."

"No, we wouldn't," Perceveral said. "I'll take care of it at once."

He equipped himself and hurried to the tunnels. The mole people guided him to the chasm after he explained the problem. Armed with blow torch, hacksaw, sledge hammer and cold chisel, Perceveral began a slow descent down the side of the precipice.

At the bottom, he quickly located the spot where the robot had landed. There, wedged between two boulders, was a complete robotic arm, wrenched loose

from the shoulder. Further on, he found fragments of a shattered eyecell. And he came across an empty cocoon of ripped and shredded rope.

But the robot wasn't there.

Perceveral climbed back up the precipice, warned the moles and began to make what preparations he could.

Nothing happened for twelve days. Then news was brought to him in the evening by a frightened mole. The robot had appeared again in the tunnels, stalking the dark passageways with a single eyecell glowing, expertly threading the maze into the main branch.

The moles had prepared for his coming with ropes. But the robot had learned. He had avoided the silent dropping nooses and charged into the mole forces. He had killed six moles and sent the rest into flight.

Perceveral nodded briefly at the news, dismissed the mole and continued working. He had set up his defenses in the tunnels. Now he had his four dead beamers disassembled on the table in front of him. Working without a manual, he was trying to interchange parts to produce one usable weapon.

He worked late into the night, testing each component carefully before fitting it back into the casing. The tiny parts seemed to float before his eyes and his fingers felt like sausages. Very carefully, working with tweezers and a magnifying glass, he began reassembling the weapon.

THE radio suddenly blared into life.

"Anton?" Haskell asked. "What about the robot?"

"He's coming," said Perceveral.

"I was afraid so. Now listen, I rushed through a priority call to the robot's manufacturers. I had a hell of a fight with them, but I got their permission for you to deactivate the robot, and full instructions on how to do it."

"Thanks," Perceveral said. "Hurry up, how's it done?"

"You'll need the following equipment. A power source of two hundred volts delivered at twenty-five amps. Can your generator handle that?"

"Yes. Go on."

"You'll need a bar of copper, some silver wire and a probe made of some non-conductor such as wood. You set the stuff up in the following—"

"I'll never have time," Perceveral said, "but tell me quickly."

His radio hummed loudly.

"Haskell!" Perceveral cried.

His radio went dead. Perceveral heard the sounds of breakage coming from the radio shack. Then the robot appeared in the doorway.

The robot's left arm and right eyecell were missing, but his self-repair units had sealed the dam-

aged spots. He was colored a dull black now, with rust-streaks down his chest and flanks.

Perceveral glanced down at the almost-completed beamer. He began fitting the final pieces into place.

The robot walked toward him.

"Go cut firewood," Perceveral said, in as normal a tone as he could manage.

The robot stopped, turned, picked up the axe, hesitated, and started out the door.

Perceveral fitted in the final component, slid the cover into place and began screwing it down.

The robot dropped the axe and turned again, struggling with contradictory commands. Perceveral hoped he might fuse some circuits in the conflict. But the robot made his decision and launched himself at Perceveral.

Perceveral raised the beamer and pressed the trigger. The blast stopped the robot in mid-stride. His metallic skin began to glow a faint red.

Then the beamer failed again.

Perceveral cursed, hefted the heavy weapon and threw it at the robot's remaining eyecell. It just missed, bouncing off his forehead.

Dazed, the robot groped for him. Perceveral dodged his arm and fled from the cabin, toward the black mouth of the tunnel. As he entered, he looked back and saw the robot following.

HE walked several hundred yards down the tunnel. Then he turned on a flashlight and waited for the robot.

He had thought the problem out carefully when he'd discovered that the robot had not been destroyed.

His first idea naturally was flight. But the robot, traveling night and day, would easily overtake him. Nor could he dodge aimlessly in and out of the maze of tunnels. He would have to stop and eat, drink and sleep. The robot wouldn't have to stop for anything.

Therefore he had arranged a series of traps in the tunnels and had staked everything on them. One of them was bound to work. He was sure of it.

But even as he told himself this, Perceveral shivered, thinking of the accumulation of accidents that the robot had for him—the months of broken arms and fractured ribs, wrenched ankles, slashes, cuts, bites, infections and diseases. All of which the robot would hound him into as rapidly as possible, in order to get back to normal routine.

He would never survive the robot's backlog. His traps *had* to work!

Soon he heard the robot's thundering footsteps. Then the robot appeared, saw him, and lumbered forward.

Perceveral sprinted down a tunnel, then turned into a smaller tunnel. The robot followed, gaining slightly.

When Perceveral reached a distinctive outcropping of rock, he looked back to gauge the robot's position. Then he tugged a cord he had concealed behind the rock.

The roof of the tunnel collapsed, releasing tons of dirt and rock over the robot.

If the robot had continued for another step, he would have been buried. But appraising the situation instantly, he whirled and leaped back. Dirt showered him, and small rocks bounced off his head and shoulders. But the main fall missed him.

When the last pebble had fallen, the robot climbed over the mound of debris and continued the pursuit.

Perceveral was growing short of wind. He was disappointed at the failure of the trap. But, he reminded himself, he had a better one ahead. The next would surely finish off the implacable machine.

THEY ran down a winding tunnel lit only by occasional flashes from Perceveral's flashlight. The robot began gaining again. Perceveral reached a straight stretch and put on a burst of speed.

He crossed a patch of ground that looked exactly like any other patch. But as the robot thundered over it, the ground gave way. Perceveral had calculated it carefully. The trap, which held under his weight, yielded at once under the robot's bulk.

The robot thrashed for a handhold. Dirt trickled through his fingers and he slid into the trap that Perceveral had dug — a pit with sloping sides that came together like a great funnel, designed to keep the robot immovably wedged at the bottom.

The robot, however, flung both his legs wide, almost at right angles to his body. His joints creaked as his heels bit into the sloping sides; they sagged under his weight, but held. He was able to stop himself before reaching the bottom, with both legs stiffly outspread and pressed into the soft dirt.

The robot's hand gouged deep handholds in the dirt. One leg retracted and found a foothold; then the other. Slowly the robot extricated himself, and Perceveral started running again.

His breath came short and hard now and he was getting a stitch in his side. The robot gained more easily, and Perceveral had to strain to stay ahead.

He had counted on those two traps. Now there was just one more left. A very good one, but risky to use.

Perceveral forced himself to concentrate in spite of a growing diz-



ziness. The last trap had to be calculated carefully. He passed a stone marked in white and switched off his flashlight. He began counting strides, slowing until the robot was directly behind him, his fingers inches from his neck.

Eighteen — nineteen — twenty!

On the twentieth step, Perceveral flung himself head-first into the darkness. For seconds, he seemed to be floating in the air. Then he struck water in a flat, shallow dive, surfaced and waited.

The robot had been too close behind to stop. There was a tremendous splash as he hit the surface of the underground lake; a sound of furious splashing; and, finally, the sound of bubbles as the heavy robot sank beneath the surface.

When he heard that, Perceveral struck out for the opposite shore.



He made it and pulled himself out of the icy water. For minutes, he lay shuddering on the slimy rocks. Then he forced himself to climb further ashore on hands and knees, to a cache where he had stored firewood, matches, whiskey, blankets and clothes.

DURING the next hours, Perceveral dried himself, changed clothes and built a small fire. He ate and drank and watched the still surface of the underground lake. Days ago, he had tested with a hundred-foot line and had found no bottom. Perhaps the lake was bottomless. More likely it fed into a swift-flowing underwater river that would pull the robot along for weeks and months. Perhaps . . .

He heard a faint sound in the water and trained his flashlight in its direction. The robot's head ap-

peared, and then his shoulders and torso emerged.

The lake was very evidently not bottomless. The robot must have walked across the bottom and climbed the steep slope on the opposite side.

The robot began to climb the slimy rocks near shore. Perceveral wearily pulled himself to his feet and broke into a run.

His last trap had failed him and his neurosis was closing in for the kill. Perceveral headed toward a tunnel exit. He wanted the end to come in sunlight.

At a jolting dog-trot, Perceveral led the robot out of the tunnels toward a steep mountain slope. His breath felt like fire in his throat and his stomach muscles were knotted painfully. He ran with his eyes half-closed, dizzy from fatigue.

His traps had failed. Why hadn't he realized the certainty of their failure earlier? The robot was part of himself, his own neurosis moving to destroy him. And how can a man trick the trickiest part of himself? The right hand always finds out what the left hand is doing, and the cleverest of devices never fools the supreme fooler for long.

He had gone about the thing in the wrong way, Perceveral thought, as he began to climb the mountain slope. The way to freedom is not through deception. It is . . .

The robot clutched at his heel, reminding Perceveral of the difference between theoretical and practical knowledge. He pulled himself out of the way and bombarded the robot with stones. The robot brushed them aside and continued climbing.

PERCEVERAL cut diagonally across the steep rock face. The way to freedom, he told himself, is not through deception. That was bound to fail. The way out is through *change!* The way out is through conquest, not of the robot, but of what the robot represented.

Himself!

He was feeling light-headed and his thoughts poured on unchecked. If, he insisted to himself, he could conquer his sense of kinship with the robot — then obviously the robot would no longer be *his* neurosis! It would simply be *a* neurosis, with no power over him.

All he had to do was lose his neurosis — even for ten minutes — and the robot couldn't harm him!

All sense of fatigue left him and he was flooded with a supreme and intoxicating confidence. Boldly, he ran across a mass of jumbled rocks, a perfect place for a twisted ankle or a broken leg. A year ago, even a month ago, he would infallibly have had an accident. But the changed Perceveral, striding like a demigod, traversed the rocks without error.

The robot, one-armed and one-eyed, doggedly took the accident upon himself. He tripped and sprawled at full length across the sharp rocks. When he picked himself up and resumed the chase, he was limping.

Completely intoxicated but minutely watchful, Perceveral came to a granite wall, and leaped for a fingerhold that was no more than a gray shadow above him. For a heart-stopping second, he dangled in the air. Then, as his fingers began to slip, his foot found a hold. Without hesitation, he pulled himself up.

The robot followed, his dry joints creaking loudly. He bent a finger out of commission making the climb that Perceveral should have failed.

Perceveral leaped from boulder to boulder. The robot came after him, slipping and straining, drawing near. Perceveral didn't care. The thought struck him that all his years of accident-proneness had gone into the making of this moment. The tide had turned now. He was at last what nature had intended him to be all along—an accident-*proof* man!

The robot crawled after him up a dazzling surface of white rock. Perceveral, drunk with supreme confidence, pushed boulders into motion and shouted to create an avalanche.

The rocks began to slide, and above him he heard a deep rumble. He dodged around a boulder, evaded the robot's outflung arm and came to a dead end.

He was in a small, shallow cave. The robot loomed in front of him, blocking the entrance, his iron fist pulled back.

Perceveral burst into laughter at the sight of the poor, clumsy, accident-prone robot. Then the robot's fist, driven by the full force of his body, shot out.

Perceveral ducked, but it wasn't necessary. The clumsy robot missed him anyhow, by at least half an inch. It was just the sort of mistake Perceveral had expected of the ridiculous accident-prone creature.

The force of the swing carried the robot outward. He fought hard to regain his balance, poised on the lip of the cliff. Any normal man or robot would have regained it. But not the accident-prone robot. He fell on his face, smashing his last eyecell, and began to roll.

Perceveral leaned out to accelerate the roll, then quickly crouched back inside the shallow cave. The avalanche completed the job for him, rolling a diminishing black dot down the dusty white mountainside and burying it under tons of stone.

Perceveral watched it all, chuckling to himself. Then he began to ask himself what, exactly, he had been doing.

And that was when he started to shake.

MONTHS later, Perceveral stood by the gangplank of the colony ship *Cuchulain,* watching the colonists step down into Theta's midwinter sunshine. There were all types and kinds.

They had all come to Theta for a chance at a new life. Each of them was vitally important at least to himself, and each deserved a fighting chance at survival, no matter what his potentialities.

And he, Anton Perceveral, had scouted the minimum-survival requirements on Theta for these people; and had, in some measure, given hope and promise to the least capable among them — the incompetents who also wanted to live.

He turned away from the stream of pioneers and entered the ship by a rear ladder. He walked down a corridor and entered Haskell's cabin.

"Well, Anton," Haskell said, "how do they look to you?"

"They seem like a nice group," Perceveral said.

"They are. Those people consider you their founding father, Anton. They want you here. Will you stay?"

Perceveral said, "I consider Theta my home."

"Then it's settled. I'll just—"

"Wait," Perceveral said. "I'm not finished. I consider Theta my home. I want to settle here, marry, raise kids. But not yet."

"Eh?"

"I've grown pretty fond of exploring," Perceveral said. "I'd like to do some more of it. Maybe one or two more planets. Then I'll settle down on Theta."

"I was afraid you might want that," Haskell said unhappily.

"What's wrong with it?"

"Nothing. But I'm afraid we can't use you again as an explorer, Anton."

"Why not?"

"You know what we need. Minimum-survival personalities for staking out future colonies. You cannot by any stretch of the imagination be considered a minimum-survival personality any longer."

"But I'm the same man I always was!" Perceveral said. "Oh, sure, I improved on the planet. But you expected that and had the robot to compensate for it. And at the end—"

"Yes, what about that?"

"Well, at the end I just got carried away. I think I was drunk or something. I can't imagine how I acted that way."

"Still, that's how you did act."

"Yes. But look! Even with that, I barely survived the experience — the total experience on Theta! *Barely!* Doesn't that prove I'm still a minimum-survival personality?"

HASKELL pursed his lips and looked thoughtful. "Anton, you almost convince me. But I'm afraid you're indulging in a bit of word-juggling. In all honesty, I can't view you as minimum any longer. I'm afraid you'll just have to put up with your lot on Theta."

Perceveral's shoulders slumped. He nodded wearily, shook hands with Haskell and turned to go.

As he turned, the edge of his sleeve caught Haskell's inkstand, brushing it off the table. Perceveral lunged to catch it and banged his hand against the desk. Ink splattered over him. He fumbled again, tripped over a chair, fell.

"Anton," Haskell asked, "was that an act?"

"No," Perceveral said. "It wasn't, damn it."

"Hmm. Interesting. Now, Anton, don't raise your hopes too high, but maybe — I say just *maybe* —"

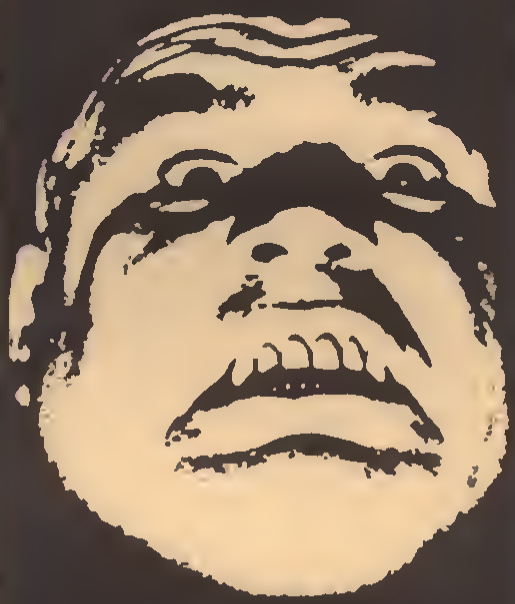
Haskell stared hard at Perceveral's flushed face, then burst into laughter.

"What a devil you are, Anton! You almost had me fooled. Now will you kindly get the hell out of here and join the colonists? They're dedicating a statue to you and I think they'd like to have you present."

Shamefaced, but grinning in spite of it, Anton Perceveral walked out to meet his new destiny.

— ROBERT SHECKLEY

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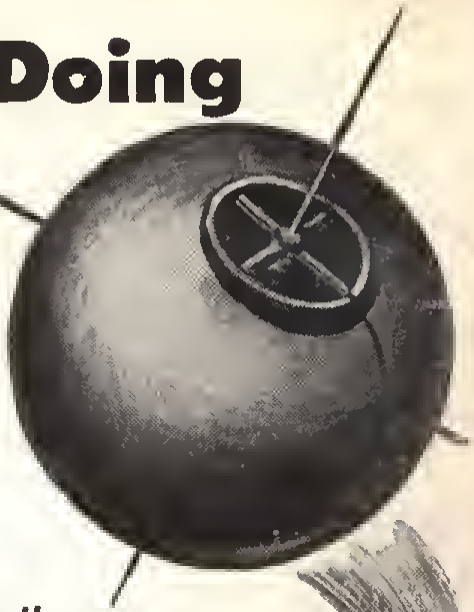
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